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PERSONAL SAVING AND ITS DETERMINANTS IN THE LIGHT OF THE OXFORD SURVEY[1]

CONTENTS

PAGE
Introduction 197
Taxation 199
The Relation of Consumption and Disposable Income 201
Housing Expenditure 205
Expenditure on Durables 205
Total Saving 209
    Saving and gross income
    Saving and housing expenditure
    Saving and windfalls
    Saving and expenditure on durables
    Saving and the liquid asset-income ratio
    Saving and change in income
Contractual Saving and Discretionary Saving 216
Saving Expectation 220
Summary of Personal Outlay 221
Conclusions 224
Appendix I : Composition of the Sample and Estimated Composition of the Population 225
Appendix II : The Measurement of the Equalising Effect of Direct Taxes and Government Transfers 226
Appendix III : Durable Goods Ownership and Hire-Purchase ... 227
Appendix IV : Partial Correlation Analyses 230

INTRODUCTION

This is the last of four papers on the results of the Oxford Survey of incomes and savings.[2] In the previous papers we explained in detail how the survey was made and we analysed the distributions of incomes and liquid asset holdings revealed by it. We now come to an interesting, and more difficult, problem, namely, the causes of personal saving. What sort of people save ? In what circumstances will a man save more ? And in what circumstances less? The simple answer of common sense is that the rich save more than the poor ' because they can more easily afford to '. As a broad generalisation this is, no doubt, true; but it is not true in detail. There are many people of small means who save more than others who would be counted well-to-do. There are wealthy people who not only fail to save but live on capital. A man's saving habits are determined not only by his income but by his occupation, age, tastes, commitments, and many other aspects of his character and circumstances.

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[1] Mr. T. I. Hardie and Mr. R. F. Dawson have assisted in the preparation of the data contained in this paper.

[2] Previous papers appeared in BULLETIN, Vol. 13, No. 9, and Nos. 11 and 12, and Vol. 14, No. 3.

Moreover individuals are not necessarily stable from one year to another in their saving behaviour. If a man has a substantial increase in income he will often save a large part of it, to start with at any rate; if, on the other hand, he suffers a substantial loss of income he may draw heavily on his past savings to make up for it. If the cost of living is rising rapidly, people who were good savers a little while ago may cease to be good savers and start spending out of capital. Consumption, in other words, is comparatively inelastic in the short run for changes in money income or the general price-level; and the obverse of this is that saving is highly elastic in the short run for these changes. But consumption is not always so ' sticky '. Sudden, and especially unexpected, changes in the family's economic circumstances may cause violent movements in consumption expenditure. If a family incurs some unusually heavy expenses, in moving house, for example, or in medical fees, its consumption expenditure will probably be greater that year than in other years, and its savings less; similarly, if a family receives a windfall, such as a football pool win or a legacy, it will usually be tempted to spend at least part of the money. This raises its consumption expenditure and, its income being unchanged, reduces its saving. Finally, a political, military or economic event which produces a sudden change in expectations may cause a ' buyers' spree ', or its opposite, ' a buyers' strike.'

The Oxford survey relates to a period, from April 1950, to April 1951, which includes the ' buyers' spree ' of the first quarter of 1951 during which consumer expenditure on clothing and household goods rose well above its normal seasonal level. It is not surprising therefore that we found a good many people, even in the upper income groups, who had spent heavily during the year on buying durables and, as a consequence, had overspent their incomes. But it is probable that we should encounter a certain number of such people in any period. For after all, is it not a very common, and indeed a very reasonable, custom that people save up in order to buy a particular thing, such as a car, a suite of furniture, or a television set ? And there will always be some people who are in the process of spending these accumulated savings. The result is that the total saving of the community is a balance of many isolated acts of saving and dissaving, some of which, especially on the side of dissaving, are quite large in amount.

We shall now proceed to examine the Oxford survey results in detail to see what light they can throw on saving behaviour. In earlier papers we emphasised that the Oxford results should not be taken to be typical of results for the country as a whole. The data presented in those papers were mainly descriptive or enumerative, and the warning against applying such estimates outside the area and time to which they referred was very necessary. The purpose of this paper, on the other hand, is mainly analytical; *i.e.*, we aim to discover relations between variables rather than to present estimates of amounts. In such a study the limitations of time and place are less restrictive because it is a reasonable assumption that relations within the spending unit of its income, saving and other characteristics are less variable from one place and time to another. It seems legitimate therefore to use the Oxford results to test certain hypotheses about saving behaviour; these tests will clearly not be conclusive, but they may be stimulating, and they will certainly be suggestive of lines along which further analysis of survey material may proceed with profit.[1]

TAXATION

In earlier papers we gave the distribution of spending units according to their total income before tax. This was the income about which we obtained information in the course of the interview. But it is reasonable to assume that saving is related rather to net income than to gross income.[2] Steps were therefore taken to estimate the net income of each spending unit by subtracting the estimated amount of tax payable. This could be done with fair accuracy because the interview provided most of the data required for making a tax assessment. The only item about which there was no information was dependent relative relief; but this does not occur very frequently nor is it of great importance.

The taxes included were income tax, surtax and compulsory national insurance contributions. The estimate of tax liability was based on the income of the year in question, *i.e.*, it was assumed that in all cases tax liability accrues with income. This is not technically true of certain types of Schedule D income, *i.e.*, profits of business and professions; but it is true enough in practice. Since our estimate of gross income did not include any imputed income from the occupation of owner-occupied dwellings it seemed that it would be illogical to include Schedule A tax in taxation : so this tax was not included in the estimate.

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[1] The Oxford survey was made in April and May 1951, and the data given in the tables below refer either to the state of affairs of the people interviewed at that time or to what had happened to them in the preceding twelve months. 416 interviews were made with heads of 'spending units'. These 'spending units' are of two broad types: (1) married couples and their children, if any, aged up to 17; (2) single persons of 18 or over, including widowed and divorced persons (who may also have children aged up to 17 attached to them). The head of a single adult spending unit is that person; of a married couple it is assumed to be the husband. Spending units are classified for some purposes according to an aggregate, such as total income or total number of persons in the unit, for other purposes according to the characteristic of the head alone, such as his age or occupation.

It should be made clear that the spending unit, though frequently corresponding to the household, is often only a part of a household, as for example where a mother lives with her married daughter and family, or where a grown up son lives with his parents, and so on. A spending unit that contains the head of the household is called a 'primary' spending unit; others are called 'secondary' spending units.

[2] The term gross income is used to mean personal income before tax; the term net (or disposable) income to mean personal income after tax.

The results of this computation are given in Table I.[1] It will be realised that as a result of the inclusion of national insurance contributions in our estimate of tax liability the only people who escape tax completely are those who are unoccupied, over the age at which contributions are payable and in receipt of an income so small as not to be liable for income tax.[2] Hence the high proportion of such spending units found in the under £200 income group, amongst the retired and unoccupied and in the oldest age groups. The estimated average tax liability per spending unit in Oxford is £64, which corresponds very closely with the national average of 1950.[3] Taxation is, by design, very highly correlated with income, and this explains the

TABLE I

Tax Liability (percentage distribution of spending units)*

Characteristic of spending unit	*Total tax liability of spending unit*				*All spending units*		
	Nil	*£1 to £24*	*£25 to £99*	*£100 and over*	*Per cent*	*Mean £*	*Standard deviation £*
All spending units	16	35	38	11	100	64	185
Total income of spending unit :							
Under £200	73	27	—	—	100	3	6
£200 to £399	7	53	40	—	100	23	16
£400 to £599	1	35	62	2	100	40	29
£600 to £999	4	11	49	36	100	90	62
£1,000 and over	—	—	—	100	100	538	512
Occupation of head :							
Manual worker	7	45	45	3	100	30	27
Salaried and self-employed ...	6	28	41	25	100	120	272
Retired and unoccupied ...	60	14	13	13	100	70	189
Age of head :							
18 to 29	6	39	43	12	100	50	76
30 to 39	2	42	47	9	100	53	91
40 to 49	3	42	38	17	100	75	132
50 to 59	9	34	48	9	100	103	350
60 to 69	25	31	31	13	100	80	217
70 and over	72	9	11	8	100	37	128

*The tax liability of each spending unit is the estimated liability for income tax and surtax on the taxable income of its members, plus the amount of national insurance contributions payable.

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[1] In the tables that follow the sample of spending units is divided into various sub-groups, according to some specified spending unit characteristic, and the distribution of a variable or the occurrence of an attribute is shown for each of these sub-groups. In many cases also the mean and standard deviation of the variables are given. In order that the accuracy of these estimates may be appraised it is necessary for the reader to know how many members of the sample occur in each sub-group ; but to avoid repeating this information in every table it is brought together in a special table in Appendix I, where both the number of spending units in the sample and the estimated percentage of spending units in the population are given.

[2] Or of a type that is not taxable, *e.g.*, war pensions.

[3] Cmd. 8203 shows personal tax of £1,391 million (excluding employers' national insurance contributions.) If this is divided amongst an estimated 22 million spending units it represents about £63 per spending unit.

variations in mean tax liability per spending unit in the various groups shown in the table. But direct taxes are also progressive in their operation; and the effect of this is shown in Table II.

TABLE II

Tax liability as a percentage of gross income
(percentage distribution of spending units)

Characteristic of spending unit	*Tax liability as a percentage of gross income*				*All spending units*
	Nil	*0.1 to 9.9%*	*10 to 19.9%*	*20% and over*	
All spending units	16	54	23	7	100
Total income of spending unit:					
Under £200	73	27	—	—	100
£200 to £399	7	66	27	—	100
£400 to £599	1	72	26	1	100
£600 to £999	4	41	42	13	100
£1,000 and over	—	—	21	79	100

If we deduct tax liability from total income the remainder is disposable income. The mean of disposable income is obviously less than the mean of total income, so long as there is any direct taxation at all; and because of the progressive nature of the tax system the standard deviation of disposable income is considerably less. We can in fact construct a measure of the degree to which the tax system is progressive by a consideration of its effects on the mean and standard deviation of income distribution.[1]

THE RELATION OF CONSUMPTION AND DISPOSABLE INCOME

It is now possible to consider the relation of saving and consumption to disposable income. Table III gives the average disposable income and average consumption per spending unit for five groups of spending units, classified by total income. From these figures we have calculated ‘ marginal ’ disposable income, ‘ marginal ’ consumption and, by dividing the former into the latter, the ‘ marginal ’ rate of consumption. The word ‘ marginal ’ is put in inverted commas because we are dealing here with a static relation

TABLE III

Consumption and disposable income
(average per spending unit in each income group)

Total income of spending unit	*Disposable income* £	*Consumption* £	*Average rate of consumption* %	*‘ Marginal ’ rate of consumption* %
Under £200	118	154	131	—
£200 to £399	282	311	110	96
£400 to £599	434	442	102	86
£600 to £999	627	586	93	75
£1,000 and over	1203	1121	93	93

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[1] A note on a suggested ‘Coefficient of Equalisation ’ is given in Appendix II.

between spending units at different levels of income, whereas the proper application of marginal analysis relates to the behaviour of the same persons, or group of persons, at different hypothetical levels of income. In practice we are usually faced with the choice between considering the behaviour of one group at different times or of different groups at the same time. Time series provide data on the former; a single survey on the latter. Neither is quite appropriate to the problem.

The table shows that within the conditions found at the time of the survey the average rate of consumption out of disposable income was higher at low levels of income and lower at high levels of income, but ceasing to fall after a total income level of about £1,000. The ' marginal ' rate of consumption as we go up the income ladder was also falling until the fourth income group but rose again in the last group. These figures are obviously rather crude; but they are plausible.

These figures in themselves do not tell us what would happen if taxation were reduced and the disposable incomes of our spending units were increased. What would they do with the extra money ? We must assume, of course, that the general price-level is unchanged, and indeed will not be affected by the decisions that the spending units ultimately make. Even so we cannot conclude that a group whose disposable income has risen from £400 to £500 will behave now in the same manner as the group who, in the previous circumstances, had £500. We are up against the inter-dependence of consumer behaviour, the tendency to be influenced as much by one's relative position as by one's absolute position.[1] All we can say at this stage is that our data are consistent with the traditional Keynesian hypothesis of a falling marginal propensity to consume, at any rate in the short-term .

Before we proceed further it is desirable to make a digression in order to examine two specific forms of consumption : expenditure on housing and on durable goods.

Housing Expenditure

The purpose of this section is to establish the amount of housing expenditure per spending unit and to see how it is related to other factors that may influence or determine it. But there is first of all a difficulty. The chief object of this survey was to study saving behaviour, and since each person who commands an independent income is a potential saver the population unit whose characteristics were studied was the spending unit, as defined above. Housing expenditure however, is not so much a spending unit expense as a household expense; and if there are several spending units in a household they will usually each contribute something towards it. If housing expense were our main interest the proper arrangement would be to aggregate income and housing expenditure for each household and then to study their relation to one another and to other characteristics of the *household*. The information on housing expenditure that is given below is the amount spent by primary spending units only, *i.e.*, the amount paid out by the head of the household for the use of the accommodation occupied by the whole household. The contributions of secondary spending units towards this expense are usually in the form of a combined payment for board and lodging so that their share of the housing expense as such cannot be satisfactorily determined. The whole cost of the house is therefore shown as being borne by the primary units while the secondaries are shown as having no housing expenditure.

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[1] See Duesenberry, J. S., *Income, Saving and the Theory of Consumer Behaviour*, Harvard, 1949.

Our definition of housing expenditure is as follows : for people who rent, it is the gross rent and rates, including water rates; for people who own their houses outright, it is the rates only; for people who own with a mortgage, it is rates plus the gross mortgage interest. Repair expenses incurred by owner-occupiers were not included nor did we inquire about Schedule A tax payments. The types of expenditure covered by this definition, though having something in common, are rather heterogeneous; and this must be borne in mind in the analysis given below.

TABLE IV
*Housing expenditure**
(*percentage distribution of spending units*)

Characteristic of spending unit	*Primary spending units : Housing expenditure*				*Secondary spending units*	*All spending units*	*Primaries with housing expenditure*	
	Nil	*£1 to £39*	*£40 to £99*	*£100 and over*			*Mean* £	*Standard deviation* £
All spending units	3	32	32	9	24	100	57	47
Total income of spending unit :								
Under £200	—	43	5	—	52	100	31	13
£200 to £399	2	35	30	7	26	100	50	37
£400 to £599	4	33	44	6	13	100	51	30
£600 to £999	3	21	51	11	14	100	68	56
£1000 and over	15	10	17	50	8	100	130	81
Occupation of head :								
Manual worker	2	39	33	1	25	100	42	24
Salaried and self-employed	6	15	37	17	25	100	82	64
Retired and unoccupied...	—	45	19	17	19	100	57	46
Age of head :								
18 to 29	2	8	15	12	63	100	99	73
30 to 39	4	34	39	6	17	100	54	39
40 to 49	3	37	41	6	13	100	49	36
50 to 59	4	27	49	9	11	100	59	51
60 to 69	5	47	25	13	10	100	51	35
70 and over	1	48	16	10	25	100	48	44
Housing status :								
Primary spending unit								
Rents	6	32	48	14	—	100	64	50
Owns outright	—	74	22	4	—	100	36	36
Owns with mortgage ...	—	50	40	10	—	100	49	33
Secondary spending unit ...	—	—	—	—	100	100	—	—

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* Housing expenditure is incurred, according to our definition, by primary spending units (*i.e.*, heads of households) only. The types of expenditure included are : (1) for renters, gross rent and rates ; (2) for those who own outright, rates only ; (3) for those with a mortgage, rates plus gross interest payable on the mortgage.

From Table IV it will be seen that about a quarter of all spending units are secondaries and three-quarters primaries. The secondaries form a high proportion of the lowest income group and of the youngest age group. Secondaries are, in fact, usually young people—half of them are under 30—and their average income is only two-thirds of the average income of primaries. Amongst the primaries there are a small number who have no housing expenditure because they are living rent and rates free; they are people who receive housing as part of their income, in many cases people working for the University or Colleges. The average housing expenditure of all primary units (except those who were paying nothing) is £57 a year, or about 22s. a week. The average varies for the different income groups : for those with under £200 a year it is about 12s. a week; for those between £200 and £600, about £1 a week; for those between £600 and £1,000, 26s. a week; and for the top income group £2 10s. a week. Manual worker primaries pay on the average only half as much for housing as the salaried and self-employed, while the retired and unoccupied are in an intermediate position.

The analysis by age of head is interesting for the light that it throws on the housing problems of the younger age groups. It will be observed that while nearly two-thirds of the under 30's are secondary spending units who, according to our definition, have no direct housing expenditure, the primaries in this age group appear to be spending very heavily on housing. One-third of the under 30 heads of households are paying out £2 a week or more for housing, and the average expenditure of all of them (£99 a year) is nearly twice as great as the average of the other age groups. This is evidently a reflection of the difficulties encountered by young people in finding housing accommodation and the relatively heavy expenditure that they have to incur in order to get it. The older households are, of course, mostly living in houses that they have occupied for many years and thus secure the full benefit of the rent control laws or, in the case of owner-occupiers, of the declining real cost of their mortgage payments. The analysis by housing status shows that renters pay more on the average than owners, especially in comparison with those who own outright whose housing expenditure is limited to the payment of rates.

The burden of rent, or other housing costs, depends on one's income; and in order to study this aspect of the problem we expressed the housing expenditure of each primary spending unit as a percentage of its net income. The results are given in Table V. It appears that 16 per cent of all spending units, or 21 per cent of the primaries, are paying a fifth of their net income or more for housing. Amongst manual workers this proportion is much less; but nearly half the manual worker primaries are paying 10 per cent or more. The heaviest spending on housing in relation to income is that of the retired and unoccupied; about half the primaries in this group spend a fifth of their income or more on housing. The picture is not quite complete because many of these older people have relatives or boarders living with them. Whilst these secondaries usually contribute towards paying the housing cost only

TABLE V

Housing expenditure as a percentage of net income (percentage distribution of spending units)

Characteristic of spending unit	*Primary spending units : Housing expenditure as a percentage of net income*				*Secondary spending units*	*All spending units*
	Nil	*0.1% to 9.9%*	*10% to 19.9%*	*20% and over*		
All spending units	3	29	28	16	24	100
Occupation of head :						
Manual worker	2	38	28	7	25	100
Salaried and self-employed	6	23	28	18	25	100
Retired and unoccupied	—	13	28	40	19	100
Age of head :						
18 to 29	2	5	9	21	63	100
30 to 39	4	39	30	10	17	100
40 to 49	3	45	31	8	13	100
50 to 59	4	36	40	9	11	100
60 to 69	5	23	38	24	10	100
70 and over	1	19	23	32	25	100
Housing status :						
Primary spending unit						
Rents	6	22	43	29	—	100
Owns outright	—	72	23	5	—	100
Owns with mortgage	—	64	32	4	—	100
Secondary spending unit	—	—	—	—	100	100
Number of persons in the spending unit :						
One	1	9	17	23	50	100
Two	7	31	37	15	10	100
Three	—	40	39	13	8	100
Four or more	4	59	30	6	1	100

the estimated net profit on the transaction is included in the incomes of the primaries. Even so it is clear that older people frequently spend a larger proportion of their incomes on housing than those in the middle age groups. The reason is that while their incomes decline with the years they continue to occupy the same house. Perhaps they find this a burden : but equally they may prefer to spend their money in this way at a time of life when other forms of expenditure are less attractive.

Nearly a third of renters are paying out a fifth or more of their net income for housing while owners generally spend less. The greater the size of the spending unit the smaller the proportion who spend a large percentage of their income on housing. Large families can least afford to spend a large proportion of their income on housing; and social policy aims to help them, apparently with some success, to obtain houses at a reasonable cost.

EXPENDITURE ON DURABLES

It seems a likely hypothesis that saving and the purchase of durable goods are inversely associated; the evidence on this point will be adduced later. Meanwhile it is useful to establish the extent of durable goods purchased by spending units of different types.

Durable goods are of many kinds, ranging in durability from a pair of socks to an emerald brooch, and in value from a safety-pin to a Rolls Royce. We were not interested in durable goods as such but in the relation between expenditure on them and personal saving; and we decided to limit our questions on this topic to those sorts of durable goods that are of fairly large value and long durability. The two attributes often go together. We argued that some people save up for the more expensive types of durable goods, which implies that eventually they will dissave in order to purchase them, and that there are probably others who consciously put their savings into durable goods with the object of keeping them in that form. In other words, some durable goods are for some people a fairly close substitute for savings : they are reasonably durable assets which are particularly attractive in a period of rising prices.

What we asked people was whether they had bought certain specific items during the past year and ' anything else that cost £25 or more '. The items listed specifically were : cars, motorbikes, radio sets, television sets, refrigerators, washing machines and vacuum cleaners. The other items mentioned in response to the ' open ' question were very various, but mainly other household goods and furniture. We excluded all clothing and soft goods from the reckoning.

The results from these questions are summarised in Table VI; and Table VII shows expenditure on durables expressed as a percentage of net income. Two-thirds of spending units had bought no durables (as defined above) in the past year; but the proportion varied with income. At one extreme, only 3 per cent of the under £200 income group had bought durables; at the other, two-thirds of those with £1,000 a year and over had bought durables, and over a third of them had bought £100 worth or more. The average amount spent by those who bought any durables was in the region of £50 to £70 for all the income groups below £1,000 while for the top income group the average was much higher (£184). Durable goods expenditure represents a growing proportion of total net income as one moves to higher income levels, *i.e.*, the marginal propensity to buy durables appears to be an increasing function of income.

A slightly smaller proportion of manual worker spending units bought durables than spending units whose heads are salaried and self-employed, and the latter spent £122 on the average compared with the £49 spent by the former. Few of the retired and unoccupied spent money in this way. Analysis by age shows that the tendency to buy durables increases in frequency with the age of head up to middle age and then falls away rapidly. The under 30's, although only a third of them buy durables, spend large amounts when they do buy; they are the people who are building up homes. The over 70's. are mostly unable to afford new durable goods.

Analysis by housing status reveals the interesting fact that the largest buyers of durables are those who have mortgages on their houses. The people who take out mortgages are presumably, for the most part, younger

TABLE VI

*Expenditure on durables**
(percentage distribution of spending units)

Characteristic of spending unit	*Expenditure on durables*			*All spending units*			*Those buying durables : Mean*
	Nil	*Under £100*	*£100 and over*	*Per cent*	*Mean* £	*Standard Deviation* £	£
All spending units	66	27	7	100	26	66	76
Total income of spending unit :							
Under £200	97	3	—	100	2	10	60
£200 to £399	71	25	4	100	15	44	51
£400 to £599	55	38	7	100	27	52	60
£600 to £999	52	40	8	100	38	56	70
£1000 and over	33	29	38	100	124	164	184
Occupation of head :							
Manual worker	65	32	3	100	17	40	49
Salaried and self-employed	57	26	17	100	52	102	122
Retired and unoccupied ...	86	13	1	100	7	21	46
Age of head :							
18 to 29	68	18	14	100	35	70	108
30 to 39	52	40	8	100	32	65	66
40 to 49	47	46	7	100	38	81	71
50 to 59	72	25	3	100	22	75	78
60 to 69	82	15	3	100	10	41	59
70 and over	93	4	3	100	6	33	86
Housing Status :							
Primary spending unit :							
Rents	65	28	7	100	24	58	66
Owns outright	70	25	5	100	29	71	70
Owns with mortgage ...	33	50	17	100	63	111	94
Secondary spending unit	81	16	3	100	15	44	91
Windfalls received: †							
None or under £10 ...	68	26	6	100	22	58	70
£10 and over	38	43	19	100	71	116	112

* The table refers to expenditure on durables of certain types only. The interviewer mentioned specifically cars, motorbikes, radio sets, television sets, refrigerators, washing machines and vacuum cleaners, and also asked whether the spending unit had bought 'anything else in the past 12 months that cost £25 or more'. These other goods were, in the main, other household goods or furniture ; clothing and soft goods were not included. The expenditure recorded here is the cash value of the goods bought less any hire-purchase still owing on them.

† Windfalls are additions to a person's assets from a source other than his income, excluding the appreciation or realisation of any of his previously held assets. The commonest examples are : legacies, gifts and winnings of football pools. No questions were asked about the gains or losses of gambling.

people with a fair income and reasonable prospects; these may also be the characteristics that encourage people to buy durable goods. Spending units were also classified according to whether they had received any windfalls during the year. The table shows that people who had windfalls of £10 or over more frequently bought durables and spent more money on them.

Table VII contains two special analyses showing the relation between durable goods expenditure as a percentage of net income and (1) the number of persons in the spending unit, and (2) the ratio of liquid assets held by the spending unit at the beginning of the year to its net income during the year.

Table VII

Expenditure on durables as a percentage of net income
(percentage distribution of spending units)

Characteristic of spending unit	*Expenditure on durables as a percentage of net income*			*All spending units*
	Nil	*0.1% to 9.9%*	*10% and over*	
All spending units	66	18	16	100
Occupation of head :				
Manual worker	65	21	14	100
Salaried and self-employed	56	19	25	100
Retired and unoccupied	86	6	8	100
Age of head :				
18 to 29	68	8	24	100
30 to 39	52	29	19	100
40 to 49	47	31	22	100
50 to 59	69	16	15	100
60 to 69	82	10	8	100
70 and over	93	3	4	100
Number of persons in the spending unit :				
One	79	8	13	100
Two	61	17	22	100
Three	71	20	9	100
Four or more	43	35	22	100
Liquid assets held at the beginning of the year as a percent of net income during the year :				
Nil	87	7	6	100
1% to 19.9%	64	24	12	100
20% to 99.9%	55	21	24	100
100% and over	55	21	24	100

From the former we derive the impression that the best customers for durable goods are the young families with two or more children (four or more persons in the spending unit). The latter analysis shows that people with no liquid assets were much less likely, in this period in Oxford, to sally forth and buy durables than those who had the money in the bank to start with. Moreover the greater the ratio of liquid assets held at the beginning of the year to net income during the year the greater the propensity to buy durables, up to a certain point. People whose liquid assets represented less than 20 per cent of their net income were, it appears, restrained from buying; but after this point there is no relation between the two variables. This suggests the hypothesis that many people try to maintain a level of liquid savings equivalent to, say, two or three months' net income; that if their liquid assets exceed this level they will be more willing to convert them into durable goods, especially in a ' buyers' spree ', than if they are below this level. The Keynesian liquidity preference theory is based on the view that the decision how much to save and the decision about the form in which the savings shall be held are independent. Once we admit that people can regard durable goods as a legitimate form in which to hold savings the Chinese Wall between consumption decisions and liquidity decisions is broken down.[1]

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[1] Further data on the ownership of durables and the incidence of hire-purchase will be found in Appendix III.

TOTAL SAVING

We come now to the heart of the matter. The questions we must try to answer are : how much was actually saved by spending units of different types, and how far was their saving influenced by the various factors that might be expected to have some influence ?

Table VIII shows the distribution of spending units according to the total amount of saving or dissaving they performed in the year. The definition of saving was explained in detail in a previous paper and will not be repeated here.[1] It is based on the normal principle that saving is the algebraic difference between net income and consumption, *i.e.*, positive saving is the excess of net income over consumption expenditure and negative saving (dissaving) is the excess of consumption over net income.

TABLE VIII

Total saving
(percentage distribution of spending units)

Characteristic of spending unit	*Total saving of spending unit*						*All spending units*		
	Saved		*No saving or dis-saving*	*Dissaved*		*Not ascer-tained*	*Per cent*	*Mean*	*Stand-ard Devi-ation*
	£50 and over	*£1 to £49*		*£1 to £49*	*£50 and over*			*£*	*£*
All spending units	13	40	11	19	15	2	100	— 8	137
Total income of spending unit :									
Under £200 ...	1	33	34	15	15	2	100	—36	156
£200 to £399 ...	6	40	10	27	15	2	100	—29	136
£400 to £599 ...	9	50	5	18	16	2	100	— 8	81
£600 to £999 ...	30	45	3	11	9	2	100	+41	99
£1000 and over ...	64	3	7	2	24	—	100	+82	392
Occupation of head :									
Manual worker	8	51	9	19	12	1	100	— 9	115
Salaried and self-employed ...	23	32	8	18	17	2	100	+12	198
Retired and unoccupied	8	21	26	21	21	3	100	—37	167
Age of head :									
18 to 29 ...	15	34	14	21	15	1	100	—14	142
30 to 39 ...	12	48	2	18	18	2	100	—15	155
40 to 49 ...	18	39	6	21	13	3	100	+ 1	125
50 to 59 ...	12	54	8	10	14	2	100	+12	250
60 to 69 ...	11	35	13	18	21	2	100	—14	119
70 and over ...	4	25	36	25	9	1	100	—12	73
Housing status :									
Primary spending unit									
Rents	8	45	9	20	16	2	100	—11	98
Owns outright ...	18	26	6	24	24	2	100	— 2	272
Owns with mortgage	22	37	—	21	20	—	100	—41	266
Secondary spending unit	15	40	24	12	6	3	100	+12	63

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[1] See BULLETIN, Vol. 13, No. 9, p. 266.

It will be apparent from the table that personal saving is very widely dispersed : the standard deviation of the whole population, for example, is £137, and for some of the sub-groups it is much greater than this. Two per cent of spending units saved £200 or more in the year, while 4 per cent dissaved the like amount; one spending unit in the sample had saved over £2,000 while 2 spending units had dissaved over £1,000. These cases were, it may be said, exceptional; but they are nevertheless true to life, and similar examples will probably be found in any representative sample of the population. There is a limit, under present conditions of taxation, to the amount that any one spending unit can save out of disposable income, but no similar limit to the amount that can be dissaved. Saving in any year cannot exceed disposable income : dissaving is limited only by the amount of assets held at the beginning of the year plus the amount of credit that lenders will grant. A person with £100,000 in the bank can, if he wishes, dissave the whole amount in one glorious outburst; but it is hardly likely that he will do.

Saving and gross income[1]

The analysis of saving by gross income group shows that one third of the lowest group, under £200, do no saving or dissaving at all. These are mostly elderly people, especially those on government retirement pensions, who have no liquid assets from which to dissave and no surplus out of their small incomes from which they could save, even if they wanted to. There are also some young people who have not developed the saving habit. As we go up the income scale the class of ' nil savers ' rapidly melts away and almost everyone becomes either a saver or a dissaver. The main reason for this on the saving side is the growth of ' contractual ' saving, especially the life insurance habit, while on the other side people who have accumulated assets in the past, perhaps in the war years, are able to draw them out for current purchases. It is rather remarkable how the distribution splays out, especially in the top income group. We might have expected that the group of dissavers would steadily disappear at higher and higher levels of income, with a corresponding increase in the number and importance of the savers; it is true that there is a tendency in that direction, up to the income group £600–999, but in the top group a large proportion of big dissavers suddenly reappears. This may be a special feature of the period covered by this survey and not typical of ' normal' saving habits. It will be a point worth watching in subsequent surveys.

It is sometimes asked how it is possible for the poor to dissave so heavily. The answer is that the poor in income are not identical with the poor in assets. As shown in an earlier paper,[2] two-thirds of the lowest income group, under £200, had some liquid assets and the average holdings of those with assets were about £319. Many of this lowest income group are old people and widows whose liquid assets are the savings of a lifetime. They are held principally as a source of income but in difficult times they are drawn on in order to supplement income.

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[1] For the analysis by sub-groups it makes little practical difference whether we use gross or net income as the defining variable. For convenience of reference, however, we continue to identify sub-groups by their gross income.

[2] BULLETIN, Vol. 14, No. 3, p. 98.

The analysis by occupation shows that on the average manual worker spending units dissaved £9 each while the salaried and self-employed saved £12 each. The working population as a whole just about balanced; it was the retired and unoccupied who heavily overspent their incomes. The analysis by age of head suggests that the best years for saving are the 40's and 50's; at that time of life commitments are smaller, income is sometimes larger and the approach of old age makes the need for saving more urgent.

Analysis by housing status shows that nearly all primary spending units either saved or dissaved, but on balance they were dissaving. It is rather remarkable that the heaviest dissavers are those with mortgages, despite the substantial contractual savings that most of them have to make on their mortgages. It will be recalled that these people were also found to be big spenders on durable goods, and there may well be some connection between these three aspects of their character. It may be that the consciousness of having an investment in their own house makes them more house proud, more willing to spend money on durable household equipment to go with it, and at the same time less reluctant to draw down their other assets.

We turn now to consider the relation between total saving and other possible determinants, as set out in Table IX. First, we may inquire how far the existence of an obligation to save—under a life assurance policy, through membership of a pension scheme or through having to pay off a mortgage—is conducive to greater total saving. Our answer, based only on this limited survey, is that in some cases it is and in others it is not. Contractual saving is fairly closely correlated with income and this perhaps explains why we find a tendency for the big contractual savers to go to one or other extreme in their total saving: they are either big savers or big dissavers. Another way of looking at the problem is to consider the relation between contractual saving and other, or ' discretionary ', saving. A study of this bivariate distribution shows no clear sign of correlation either positively or negatively, or rather, it suggests the existence of *both* positive *and* negative correlation, as if two populations were imposed one on the other.

Saving and housing expenditure

The table shows that amongst primary spending units saving is positively associated with housing expenditure. This is not exactly what we expected to find. It seems a reasonable hypothesis that, other things being equal, the more a family spends on housing the less it will save and *vice versa*. But a powerful influence on each of these variables is income; and it may be that the positive association of each of them separately with income is responsible for their positive mutual association. To test our hypothesis therefore we must analyse the relation between housing expenditure and saving when the effect of income is eliminated. One way of doing this is to divide the housing expenditure and saving of each primary spending unit by its net income and

TABLE IX

Total saving related to other possible determinants
(percentage distribution of spending units)

Characteristic of spending unit	*Total saving of spending unit*						*All spending units*		
	Saved		*No saving or dissaving*	*Dissaved*		*Not ascertained*	*Per cent*	*Mean £*	*Standard Deviation £*
	£50 and over	*£1 to £49*		*£1 to £49*	*£50 and over*				
Contractual saving of spending unit:									
Nil	6	12	40	21	17	4	100	—29	101
£1 to £9 ...	4	56	2	19	17	2	100	—22	120
£10 to £29 ...	4	61	—	20	13	2	100	— 5	62
£30 to £49 ...	16	53	1	23	7	—	100	— 5	189
£50 and over ...	73	6	—	5	15	1	100	+81	346
Housing expenditure :									
Primary spending unit									
Under £40 ...	9	39	8	20	23	1	100	—29	152
£40 to £99 ...	11	47	4	24	12	2	100	— 4	133
£100 and over ...	28	20	16	15	19	2	100	+21	327
Secondary spending unit	15	40	24	12	6	3	100	+12	63
Windfalls received :									
None or under £10	12	43	11	20	12	2	100	—	100
£10 and over ...	17	3	14	15	51	—	100	—88	390
Unusual expenses :[1]									
None	12	41	14	21	10	2	100	+ 7	79
Moving house, setting up house etc.[2]	20	22	2	14	42	—	100	—131	360
Other expenses[3]	14	43	4	11	27	1	100	—28	246
Expenditure on durables :									
Nil	10	46	17	17	9	1	100	+ 6	134
£1 to £39 ...	13	28	3	37	16	3	100	— 1	70
£50 to £99 ...	19	37	1	15	23	5	100	—12	128
£100 and over ...	23	16	—	8	53	—	100	—134	353
Liquid assets held at beginning of year as a percent of net income :									
Nil	3	59	25	8	5	—	100	—	116
1% to 19.9% ...	14	49	8	18	11	—	100	— 3	116
20% to 99.9% ...	15	36	2	27	19	1	100	— 2	112
100% and over ...	20	19	12	23	26	—	100	—25	258
Change in income as a percent of income the year before :									
Increase of 25% or more ...	22	40	10	21	6	1	100	+27	116
Increase of 5% to 24.9% ...	16	46	8	17	12	1	100	+10	86
Little or no change (less than 5%) ...	11	40	14	19	14	2	100	— 3	118
Decrease of 5% or more	7	34	10	18	30	1	100	—55	176

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[1] The question was : 'Looking back over the past 12 months, would you say you had any unusual or extra heavy expenses, or were your expenses unusually low, or was it a pretty average sort of year ? '

[2] This includes : moving house, setting up house for the first time and buying furniture.

[3] This includes : having a baby, an illness or death in the house, school fees, and several other types of unusual expense.

to study the relations between the resulting ratios. Such an analysis is presented in Table X, from which it appears that the positive association between housing expenditure and saving has gone and that the net association is, if anything, slightly negative. The data have been further analysed by means of partial correlation,[1] and the conclusion emerges that the positive crude association between housing expenditure and saving is in fact due to the influence of income and that the net association between them, after eliminating the effect of income, is negligible. There is thus no support from these data for the view that heavy housing expenditure causes people to dissave or *vice versa*.

TABLE X

Total saving as a percentage of net income related to housing expenditure as a percentage of net income
(percentage distribution of spending units)

Housing expenditure as a percentage of net income (primary spending units only)	*Percentage of net income saved or dissaved*						*All spending* units
	Saved		*Less than 5% saved or dissaved*	*Dissaved*		*Not ascertained*	
	15% and over	*5% to 14.9%*		*5% to 14.9%*	*15% and over*		
Less than 10% ...	12	25	36	11	16	—	100
10% to 19.9% ...	5	20	46	12	15	2	100
20% and over ...	6	13	41	16	22	2	100
All primary spending units	8	21	41	12	17	1	100

Saving and windfalls

It seems clear from the table that when people receive gifts, legacies, football pool winnings or other windfalls they are often disposed to increase their consumption to a greater or less degree. Half the recipients of windfalls overspent their incomes by £50 or more and the whole group dissaved £88 each on the average. The remainder of the population were exactly in balance. What does this relation between the receipt of windfalls and dissaving really mean ? A fair proportion of the windfalls were legacies. We assume that a deceased person's inheritors, whether they be the government or private people, are responsible for the property that they receive from the estate: if they retain it intact they neither save nor dissave; but if they use any part of it to meet their own current needs they are dissaving. We are familiar with this idea when applied to the government; it is the standard practice in national income analysis to subtract the total value of estate duties paid either from gross personal saving or from gross government saving. It follows logically that private people who inherit property from the dead must also be held accountable for it and that if they spend any part of the capital they are, from the social point of view, dissaving.

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[1] Details are given in Appendix IV.

An almost equal number of windfalls were gifts. They varied in size very greatly and, no doubt, in the purposes for which they were given. Some were specifically described as wedding presents, and it is perhaps not remarkable that such gifts were always spent in full; in fact the newly married, as can be seen from the next section of the table, were usually heavy dissavers. There were no very large football pool winners in our sample and there is no evidence that small winners save either more or less than non-winners.

It should be explained at this point that in respect of both gifts and football pools our definition of saving is asymmetrical, *i.e.*, we treated receipts of gifts or winnings as debit items but gave no credit for gifts made or the 'investments' put into the pools week by week. The omission of gifts made from the credit side of the acount is a mistake; for it would be unreasonable to regard a man who draws £500 out of his bank to give to his son as having spent that money. The father has made a capital transfer and it is his son who must be held accountable for what is done with the money. At any rate they should not *both* be held accountable. Otherwise the money will be counted as dissaved even if the son keeps it intact; and if he spends it it will be counted as dissaved twice over. But the case of the football pools is not so easy to settle, because it seems hardly plausible to regard the stakes that people put on the pools as a form of personal saving. And yet it is equally clear that a man who wins £50,000 and 'saves' it cannot be credited with saving that much money out of his income. One solution would be to regard the pool promoters as saving on behalf of their customers the amounts available for 'dividend' and then executing a capital transfer when the 'dividends' are paid. At any rate, the paradox remains that the football pools do contribute to the total volume of personal saving in so far as the dividends that they pay out are not spent on consumption by the recipients. The pools may almost claim to be one of the 'institutional channels' available to small savers!

Spending units were asked whether they had had any 'unusual or extra heavy expenses' in the preceding year. It would not be surprising to find that people who had had such unusual expenses saved less than those who had not; and the table shows that it is so on the average. The heaviest dissavers seem to be those who have moved house or set up house for the first time during the year. They include the newly-married couples; but others who moved house are also heavy dissavers.

Saving and expenditure on durables

Table IX shows that on the average the more durable goods people bought the less they saved. But this is one of those averages that needs to be treated with caution. For there are in fact two tendencies that move in opposite directions: one is for the people who buy more durables to save more also; and the other is for the people who buy more durables to dissave more heavily. It is the latter tendency that carries greater weight; but the former is still important. Here again we find that the peculiar double relation is due to an income effect. Both durable expenditure and saving are correlated

TABLE XI

Total saving as a percentage of net income related to expenditure on durables as a percentage of net income
(percentage distribution of spending units)

Expenditure on durables as a percentage of net income	*Percentage of net income saved or dissaved*						*All spending units*
	Saved		*Less than 5% saved or dissaved*	*Dissaved*		*Not ascertained*	
	15% and over	*5% to 14.9%*		*5% to 14.9%*	*15% and over*		
Nil	7	20	53	9	11	—	100
0.1% to 9.9% ...	10	22	33	23	11	1	100
10% to 19.9% ...	12	26	32	15	14	1	100
20% and over ...	13	6	14	3	55	9	100
All spending units ...	9	20	44	11	15	1	100

with income; the higher income groups, in other words, can afford to buy durables *and* to save while people of lower incomes can only spend heavily on durables by drawing down their savings (or increasing their indebtedness by hire-purchase). The partial association between durable expenditure and saving can be seen better when each is expressed as a percentage of net income, as in Table XI. In this table there is still a suggestion of positive association but the negative association is clearly dominant; and this is confirmed by partial correlation analysis.[1]

Saving and the liquid asset-income ratio

It was shown earlier that there appeared to be an association between the amount of liquid assets held by Oxford spending units (expressed as a percentage of their net incomes) and their expenditure on durable goods. A similar relation appears to exist between relative liquid asset holdings and saving. People with no liquid assets cannot easily dissave, except by the sale of other assets or by running into debt, and since they have no liquid assets they are *ex hypothesi* not likely to be very big positive savers. As the relative amount of liquid assets held increases, two opposite influences appear to be at work : in some cases, the fact of having a lot of liquid assets in relation to one's income is evidence of a thrifty nature; such people go on saving and add even more to their liquid asset holdings. Other people, however, are moving in the other direction : in their case the existence of a high liquid asset—income ratio encourages them to spend and draw down their assets. On balance, it seems that the latter influence was more important in Oxford in the period covered by the survey; it was the people whose liquid assets exceeded their net incomes who contributed most to total dissaving.

Saving and change in income

It is a well-known hypothesis that consumption is relatively inelastic for changes in income, at least in the short-term. Our analysis relates personal saving to changes in spending unit income in the past year, expressed as a

[1] Details will be found in Appendix IV.

percentage of income in the year before; and the figures show a very consistent positive association between the two variables. It is true that there is a wide dispersion about the average of each group, but there can be no doubt that these figures give strong support to the hypothesis of a low short run income-elasticity of consumption, which is also in full conformity with common sense. Two outstanding examples of people in our sample whose saving had been affected by a change in income were : (1) a professional man whose annual income had suddenly increased by a large amount; practically all the extra net income had, for the time being, been saved; (2) a business man who had sold his business early in the year and was waiting to buy another as soon as a suitable one came on the market; meantime he was living on capital at a rate of over £1,000 a year. It seems clear that any attempt to explain individual differences in saving habits must treat change in income as one of the more important factors.

That concludes our examination of the analyses contained in Table IX. A similar study of a number of the factors, but relating them this time to saving expressed as a percentage of net income, is contained in Table XII. The figures in this table confirm the conclusions drawn from Tables VIII and IX, but sometimes they give a slightly different view of the matter. For example, it appears that nearly half the population save or dissave very little (less than 5 per cent) in relation to their income; and that the proportion of these small relative savers or dissavers increases fairly consistently with the age of the head of spending unit. The relations between saving and liquid asset holdings and saving and change in income, when each variable is expressed as a percentage of income, are even more clearly apparent than they were in Table IX.

Contractual Saving and Discretionary Saving

Total saving may be divided into two sections : contractual saving, which is the saving through life assurance, superannuation and repayments of mortgage principal, and ‘ discretionary ’ saving, which is the remainder. Contractual saving is the sort of saving that is made regularly in accordance with a contract or agreement, which usually cannot be broken without some degree of loss; and discretionary saving is saving which is made freely and without compulsion. The division is not perfect but it is reasonably clear.[1]

Table XIII shows the distribution of the actual amounts of contractual saving and Table XIV shows the distribution of contractual saving expressed as a percentage of gross income.[2] The total of contractual saving is quite considerable. In Oxford it works out at £21 per spending unit on the average (including those who save nothing this way); and for the country as a whole

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[1] Payments made under hire-purchase agreements are contractual repayments of debt but they have not been included in contractual saving. Hire-purchase payments do not seem to be quite on the same footing as repayments of mortgage principal. Perhaps this is because we treat durable goods as consumption goods while houses are treated as capital goods. In any case the amount of hire-purchase paid off during any year on debts incurred previously is quite small.

[2] Contractual saving seems to be related more directly to gross than to net income.

TABLE XII

Total saving as a percentage of net income
(percentage distribution of spending units)

Characteristic of spending unit	*Percentage of net income saved or dissaved*						*All spending units*
	Saved		*Less than 5% saved or dissaved*	*Dissaved*		*Not ascertained*	
	15% and over	*5% to 14.9%*		*5% to 14.9%*	*15% and over*		
All spending units ...	9	20	44	11	15	1	100
Occupation of head :							
Manual worker ...	5	20	52	11	11	1	100
Salaried and self-employed ...	17	23	30	13	16	1	100
Retired and unoccupied ...	5	11	46	12	24	2	100
Age of head :							
18 to 29	12	23	35	14	15	1	100
30 to 39	9	31	34	10	16	—	100
40 to 49	11	19	42	13	12	3	100
50 to 59	11	17	55	4	13	—	100
60 to 69	6	12	53	11	16	2	100
70 and over ...	2	8	58	16	15	1	100
Windfalls received :							
None or under £10	8	21	47	11	12	1	100
£10 and over ...	14	3	27	14	42	—	100
Unusual expenses :							
None	8	20	48	13	10	1	100
Moving house, setting up house, etc	14	22	14	8	42	—	100
Other expenses ...	9	20	40	7	24	—	100
Liquid assets at the beginning of the year as a percent of net income :							
Nil	4	23	63	6	4	—	100
1% to 19.9% ...	7	25	49	9	10	—	100
20% to 99.9% ...	8	21	33	20	18	—	100
100% and over ...	18	9	34	11	28	—	100
Change in income as a percent of income the year before :							
Increase of 25% or more	18	21	35	20	5	1	100
Increase of 5% to 24.9%	13	20	44	12	11	—	100
Little or no change (less than 5%) ...	6	20	49	10	14	1	100
Decrease of 5% or more	4	18	38	10	28	2	100

it is probably of the same order of magnitude, *i.e.*, in the region of £400 million a year. If people were not offsetting their positive contractual savings by negative discretionary saving personal saving in this country would be of quite a respectable size, namely, 4–5 per cent of net personal income. Average contractual saving varies directly with gross income and the correlation coefficient is +0.66. Manual workers save contractually less than half, on the average, than the salaried and self-employed; and the average amount

Table XIII

Contractual saving[1]
(*percentage distribution of spending units*)

Characteristic of spending unit	*Amount of contractual saving*			*All spending units*			*Contractual savers only: Mean*
	Nil	*£1 to £29*	*£30 and over*	*Per cent*	*Mean* £	*Standard Deviation* £	£
All spending units	27	53	20	100	21	44	29
Total income of spending unit :							
Under £200	66	31	3	100	6	19	16
£200 to £399	27	69	4	100	9	9	12
£400 to £599	13	62	25	100	20	20	23
£600 to £999	12	46	42	100	35	37	38
£1000 and over	18	5	77	100	108	123	130
Occupation of head :							
Manual worker	15	70	15	100	15	17	17
Salaried and self-employed...	27	40	33	100	37	72	52
Retired and unoccupied ...	62	29	9	100	12	38	33
Age of head :							
18 to 29	33	52	15	100	15	34	23
30 to 39	12	57	31	100	27	36	31
40 to 49	14	52	34	100	34	49	39
50 to 59	13	74	13	100	24	74	28
60 to 69	45	45	10	100	15	36	27
70 and over	59	39	2	100	5	14	11
Housing status :							
Primary spending unit							
Rents	21	65	14	100	17	30	22
Owns outright	31	52	17	100	28	80	41
Owns with mortgage ...	4	27	69	100	56	57	58
Secondary spending unit ...	46	43	11	100	11	28	20

[1] Contractual saving is the total of premiums paid for life and endowment assurance, contributions to superannuation schemes, and repayments of principal on mortgages. Where total mortgage payments were given but their division into interest and principal was not, the principal repayment was assumed to be two-thirds of the total.

saved increases with the age of head up to the 40–49 group and then falls away. Amongst primary spending units, the renters save contractually less than the owners, while those with a mortgage, as is to be expected, save a large amount in this way. When contractual saving is expressed as a percentage of gross income the same tendencies are exhibited by the distributions; from which one can conclude that while income is an important factor in determining the amount saved contractually it is not the only one.

Table XV shows the distribution of discretionary saving. Average discretionary saving is —£29 for all spending units combined and it is negative in all sub-groups except two. It is at its best in the £600–999 income group; and it is not too bad amongst the 50–59 age group. The biggest average dissaving is done by the people with mortgages who, as already noted, dissaved in other ways more than they saved under contract.

TABLE XIV

Contractual saving as a percentage of gross income
(percentage distribution of spending units)

Characteristic of spending unit	*Contractual saving as a percentage of gross income*				*All spending units*
	Nil	*0.1% to 4.9%*	*5% to 9.9%*	*10% and over*	
All spending units	27	48	16	9	100
Occupation of head :					
Manual worker	15	61	17	7	100
Salaried and self-employed	27	38	21	14	100
Retired and unoccupied	62	24	6	8	100
Age of head :					
18 to 29	33	45	19	3	100
30 to 39	12	52	20	16	100
40 to 49	14	42	29	15	100
50 to 59	13	70	11	6	100
60 to 69	45	40	9	6	100
70 and over	59	36	1	4	100
Housing status :					
Primary spending unit					
Rents	21	57	15	7	100
Owns outright	31	49	12	8	100
Owns with mortgage	4	22	38	36	100
Secondary spending unit	46	38	13	3	100

TABLE XV

Discretionary saving
(percentage distribution of spending units)

Characteristic of spending unit	*Discretionary saving*						*All spending units*	
	Saved		*No saving or dis-saving*	*Dissaved*		*Not ascertained*	*Per cent*	*Mean*
	£50 and over	*£1 to £49*		*£1 to £49*	*£50 and over*			*£*
All spending units	8	19	29	25	18	1	100	—29
Total income of spending unit:								
Under £200	—	13	56	15	15	1	100	—42
£200 to £399	7	17	27	29	18	2	100	—38
£400 to £599	2	24	23	30	21	—	100	—28
£600 to £999	16	23	22	22	15	2	100	+ 6
£1000 and over	41	12	16	8	23	—	100	—26
Occupation of head :								
Manual worker	4	20	31	28	16	1	100	—24
Salaried and self-employed	16	19	21	22	21	1	100	—25
Retired and unoccupied ...	4	11	40	21	22	2	100	—49
Age of head :								
18 to 29	11	27	22	21	18	1	100	—29
30 to 39	7	24	17	23	29	—	100	—42
40 to 49	6	12	30	35	14	3	100	—33
50 to 59	12	18	37	21	12	—	100	—12
60 to 69	4	20	26	26	22	2	100	—29
70 and over	3	5	58	24	9	1	100	—17
Housing status :								
Primary spending unit								
Rents	6	22	29	24	18	1	100	—28
Owns outright	11	15	18	33	21	2	100	—30
Owns with mortgage ...	7	4	17	39	33	—	100	—97
Secondary spending unit ...	7	20	44	17	10	2	100	+ 1

SAVING EXPECTATION

Heads of spending units were asked whether they expected to save anything in the coming year or whether they expected to have to draw on past savings. The answers to this sort of question must, of course, be taken *cum grano salis;* nevertheless the results are of some interest and are given in Table XVI. It will be observed that about half the population expect neither to save nor dissave (if we include those who say they ' don't know '), a quarter expect to save and a quarter expect to dissave. The variations in this breakdown by income groups and by occupations conform with the behaviour of these groups as we have already studied them. The analysis by age, however, shows young people to be much more optimistic about future saving than their actual saving record would justify. Optimism is an attribute of youth; but it may also be true that the desire to save at this age is very strong and is frustrated by other circumstances.

TABLE XVI

Saving expectation[1]
(percentage distribution of spending units)

Characteristic of spending unit	*Saving expectation*				*All spending units*
	Will save	*Will neither save nor dissave*	*Will dis-save*	*Don't know*	
All spending units	24	42	24	10	100
Total income of spending unit :					
Under £200	17	43	26	14	100
£200 to £399	19	41	29	11	100
£400 to £599	25	42	21	12	100
£600 to £999	40	41	16	3	100
£1000 and over	36	43	13	8	100
Occupation of head:					
Manual worker	22	42	23	13	100
Salaried and self-employed	40	38	15	7	100
Retired and unoccupied	2	49	39	10	100
Age of head :					
18 to 29	61	21	10	8	100
30 to 39	26	49	23	2	100
40 to 49	23	43	22	12	100
50 to 59	13	47	22	18	100
60 to 69	3	40	38	19	100
70 and over	6	54	32	8	100

A further analysis of saving expectations, which relates them to the past experience and present circumstances of the spending unit, is given in Table XVII. It will be seen that people who had had an increase in income in the past year were generally more optimistic about future saving than those who had had a decrease. Likewise those who said they were better off at the time

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[1] The question was : ' Do you think that, during the coming year, you will be able to save anything out of your income, or do you expect to have to draw on past savings ? '

TABLE XVII

Saving expectation related to past experience and present circumstances
(percentage distribution of spending units)

Characteristic of spending unit	*Saving expectation*				*All spending units*
	Will save	*Will neither save nor dissave*	*Will dis-save*	*Don't know*	
All spending units	24	42	24	10	100
Change in income in past year :					
Increase of £50 or over	29	42	21	8	100
Increase of £1 to £49	45	31	11	13	100
No change	17	48	27	8	100
Decrease of £1 to £49	15	55	23	7	100
Decrease of £50 or over	5	32	34	29	100
Present economic circumstances :					
Better off	53	24	15	8	100
About the same	30	51	11	8	100
Worse off	12	43	33	12	100
Total saving in past year :					
Saved £50 or over	53	35	10	2	100
Saved £1 to £49	23	49	17	11	100
No saving or dissaving	15	60	16	9	100
Dissaved £1 to £49	25	30	34	11	100
Dissaved £50 or over	11	26	48	15	100

of interview than a year before were more optimistic than those who said they were worse off. And thirdly, there is a definite, though by no means complete, association between the actual saving of the past year and the saving expectation for the coming year.

SUMMARY OF PERSONAL OUTLAY

In order to get a clearer picture of the way in which spending units of different types use their resources we have brought together in Table XVIII the averages of the various components of outlay that have been given piecemeal in the preceding tables, and in Table XIX each of these components has been expressed as a percentage of total income. The figures of Table XIX are illustrated in the diagram. In the analysis by income group the progressive effect of direct taxation is very apparent, and also the regressive effect of housing expenditure.[1] From the analysis by age it seems that there is a negative association within age groups between expenditure on housing and expenditure on durables.

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[1] In Tables XVIII and XIX the aggregate housing expenditure of the spending units in each groups is divided by the total number of spending units in that group, not by the number of primary units alone. This procedure, which was inevitable in the circumstances (see above), is only satisfactory on the assumption that the characteristics of secondary units are similar to those of the primary units with whom they dwell. The assumption may be true in many cases ; but it is unfortunately not always true.

TABLE XVIII

Personal outlay

(mean outlay per spending unit in each group)

Characteristic of spending unit	*Total income before tax* £	*Direct tax due* £	*Disposable income* £	*Saving* £	*Total consumption* £	*Housing expenditure* £	*Purchase of durables* £	*Other consumption expenditure* £
All spending units ...	469	64	405	— 8	413	42	26	345
Total income of spending unit :								
Under £200	121	3	118	—36	154	15	2	137
£200 to £399	305	23	282	—29	311	36	15	260
£400 to £599	474	40	434	— 8	442	42	27	373
£600 to £999	717	90	627	+41	586	56	38	492
£1000 and over ...	1741	538	1203	+82	1121	100	124	897
Occupation of head :								
Manual worker ...	401	30	371	— 9	380	31	17	332
Salaried and self-employed	643	120	523	+12	511	57	52	402
Retired and unoccupied	363	70	293	—37	330	46	7	277
Age of head :								
18 to 29	397	50	347	—14	361	35	35	291
30 to 39	519	53	466	—15	481	43	32	406
40 to 49	564	75	489	+ 1	488	41	38	409
50 to 59	545	103	442	+12	430	50	22	358
60 to 69	431	80	351	—14	365	43	10	312
70 and over	284	37	247	—12	259	36	6	217

TABLE XIX

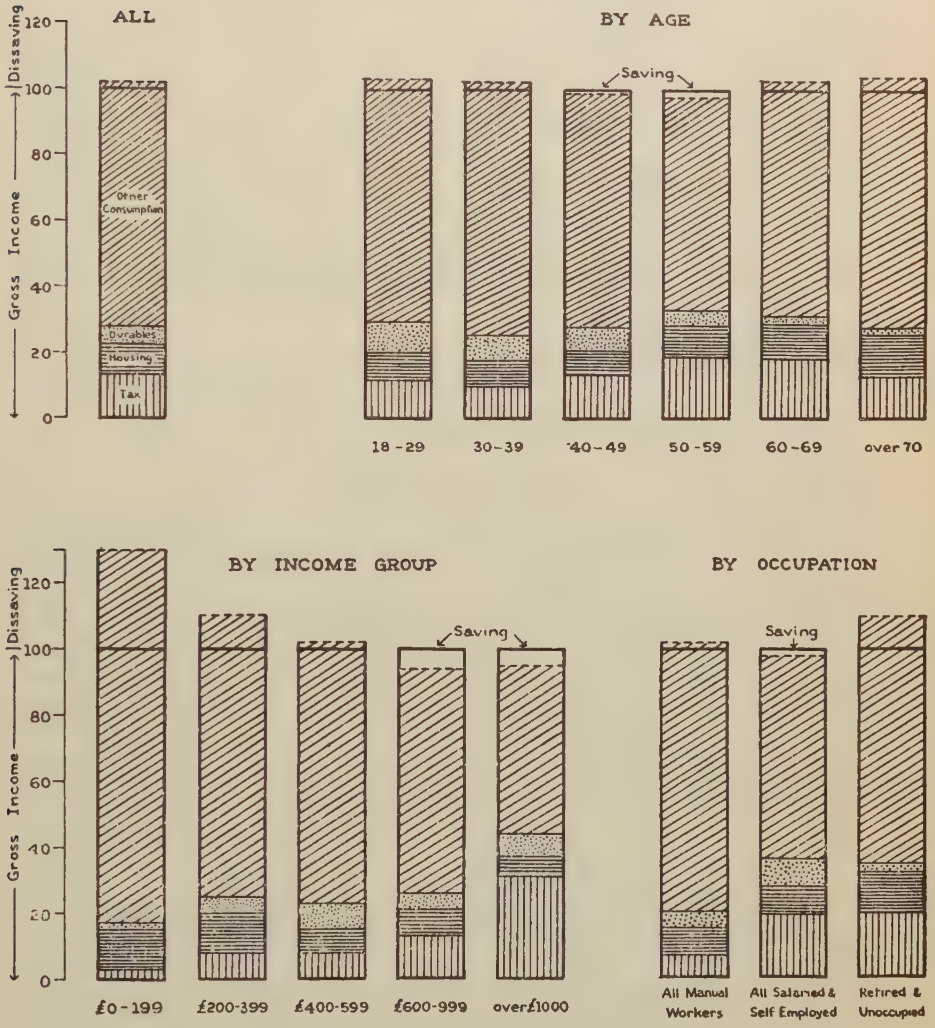
Personal outlay as a percentage of total income before tax

(mean outlay per spending unit as a percent of mean total income per spending unit)

Characteristic of spending unit	*Total income before tax* %	*Direct tax due* %	*Disposable income* %	*Saving* %	*Total consumption* %	*Housing expenditure* %	*Purchase of durables* %	*Other consumption expenditure* %
All spending units ...	100	14	86	— 2	88	9	6	73
Total income of spending unit :								
Under £200	100	3	97	—30	127	12	2	113
£200 to £399	100	8	92	—10	102	12	5	85
£400 to £599	100	8	92	— 2	94	9	6	79
£600 to £999	100	13	87	+ 6	81	8	5	68
£1000 and over ...	100	31	69	+ 5	64	6	7	51
Occupation of head :								
Manual worker ...	100	7	93	— 2	95	8	4	83
Salaried and self-employed	100	19	81	+ 2	79	9	8	62
Retired and unoccupied	100	19	81	—10	91	13	2	76
Age of head :								
18 to 29	100	13	87	— 4	91	9	9	73
30 to 39	100	10	90	— 3	93	8	6	79
40 to 49	100	13	87	0	87	7	7	73
50 to 59	100	19	81	+ 2	79	9	4	66
60 to 69	100	19	81	— 3	84	10	2	72
70 and over	100	13	87	— 4	91	13	2	76

PERSONAL OUTLAY AS A PERCENTAGE OF TOTAL INCOME BEFORE TAX

Mean outlay per spending unit in each group expressed as a percentage of mean income for that group



CONCLUSIONS

We have now completed our detailed analysis and it is time to draw together the conclusions. We have found no simple explanation of saving behaviour but we have encountered a number of factors that seem to influence it. These can best be summarised by listing the characteristics of people who save, dissave or do neither the one nor the other.

Characteristics of people who save

High income, especially if £600 or more.
Middle age, from 40 to 60.
Rise in income.
Being a secondary spending unit.

Characteristics of people who dissave

Low income, especially if less than £400.
Being under 40 or over 60.
Being retired or unoccupied (mainly pensioners and widows).
Receipt of a windfall.
Purchase of durable goods.
Moving house or setting up house.
Fall in income.
Large ratio of liquid assets to income.

Characteristics of those who neither save nor dissave

Very low income, *i.e.*, under £200.
Old age.
Being retired or unoccupied.

It is obvious that some of the characteristics within each group are intercorrelated. For example, old age, retirement and low income are closely associated; and so are the receipt of a windfall and the purchase of durable goods. For newly-married couples these last two characteristics are also associated with setting up house.

The most pervasive influences on saving behaviour seem to be income, change in income and the purchase of durable goods.

H. F. LYDALL

APPENDIX I

COMPOSITION OF THE SAMPLE AND ESTIMATED COMPOSITION OF THE POPULATION

In order that the reader should be able to appraise the accuracy of the figures given in the tables of this paper it is necessary that he should know the number of spending units of the original sample that fall into each of the various sub-groups. This information is summarised in the table below. The first column shows the number of successful interviews made with spending units of each type; in the second column we have included for convenience the estimated percentage of such spending units that occur in the population of Oxford. Since the sample was constructed of three separate samples drawn from three strata of houses, with the employment of a varying sampling rate in the different strata, there is no direct connection between the proportion of spending units of a particular type that occur in the sample and the estimated proportion occurring in the population. The estimate is arrived at by weighting-up the sample results from each stratum separately.

Distribution of spending units of different types, in the sample and in the population

Characteristic of spending unit	*No. in the sample*	*Estimated percentage in the population*
All spending units... ...	416	100
Total income of spending unit :		
Under £200	69	17
£200 to £399	149	35
£400 to £599	105	29
£600 to £999	46	13
£1000 and over	47	6
Occupation of head :		
All manual workers ...	*174*	*52*
Skilled worker	58	17
Semi-skilled (machine) ...	34	12
Semi-skilled (other) ...	52	13
Unskilled	30	10
All salaried and self-employed	*166*	*31*
Clerical, shop assistants, etc.	46	11
Managerial, professional & technical employees	85	14
Self-employed	35	6
Retired and unoccupied ...	*76*	*17*
Age of head :		
18 to 29	81	19
30 to 39	83	21
40 to 49	79	19
50 to 59	68	15
60 to 69	61	15
70 and over	44	11

Characteristic of spending unit	*No. in the sample*	*Estimated percentage in the population*
Housing expenditure :		
Primary spending unit :		
Under £40	109	35
£40 to £99	128	32
£100 and over	70	9
Secondary spending unit :...	109	24
Housing expenditure as a per cent of net income (primaries only) :		
Less than 10% ...	113	32
10% to 19.9%	110	28
20% and over	84	16
Expenditure on durables :		
Nil	266	66
£1 to £39	53	15
£40 to £99	57	12
£100 and over	40	7
Expenditure on durables as a per cent of net income :		
Nil	266	66
0.1% to 9.9%	75	18
10% to 19.9%	41	9
20% and over	34	7
Housing status :		
Primary spending unit		
Rents	203	50
Owns outright	70	15
Owns with mortgage ...	34	11
Secondary spending unit	109	24

Distribution of spending units of different types, in the sample and in the population

Characteristic of spending unit	*No. in the sample*	*Estimated percentage in the population*
Number of persons in the spending unit:		
One	185	40
Two	107	26
Three	46	13
Four or more	78	21
Number of children under 16 in the spending unit:		
None	294	67
One	47	12
Two	40	11
Three or more	35	10
Windfalls received:		
None or under £10 ...	374	92
£10 or over	42	8
Unusual expenses:		
None	312	77
Moving house, setting up house, etc.	29	6
Other expenses ...	75	17
Liquid assets held at the beginning of the year as a percent of net income:		
Nil	91	24
0.1% to 19.9% ...	83	26
20% to 99.9% ...	115	25
100% and over ...	107	21
Not ascertained ...	20	4
Change in income in the past year:		
Increase of £50 and over	74	17
Increase of £1 to £49 ...	81	24
No change	179	43
Decrease of £1 to £49...	25	5
Decrease of £50 and over	39	7
Not ascertained ...	18	4

Characteristic of spending unit	*No. in the sample*	*Estimated percentage in the population*
Change in income as a percent of income the year before:		
Increase of 25% or more	40	9
Increase of 5% to 24.9%	95	25
Little or no change (less than 5%)	212	52
Decrease of 5% or more	55	11
Not ascertained ...	14	3
Present economic circumstances:		
Better off	80	18
About the same ...	233	55
Worse off	103	27
Total saving:		
Saved £50 or over ...	67	13
Saved £1 to £49 ...	148	40
No saving or dissaving	49	11
Dissaved £1 to £49 ...	72	19
Dissaved £50 or over	70	15
Not ascertained ...	10	2
Contractual saving:		
Nil	135	27
£1 to £9 ...	89	28
£10 to £29 ...	93	25
£30 to £49 ...	41	10
£50 and over ...	58	10

APPENDIX II

THE MEASUREMENT OF THE EQUALISING EFFECT OF DIRECT TAXES AND GOVERNMENT TRANSFERS

A simple and, it is suggested, reasonably satisfactory measure of the equalising effect on personal incomes of direct taxation and government transfers can be obtained by comparing the coefficient of variation of incomes before and after the government's intervention.

If m_1, m_2 and m_3 are the mean of (1) gross personal income excluding government transfers, (2) gross personal income including government transfers and (3) net personal income after tax, and S_1, S_2 and S_3 are the respective standard deviations, the coefficients of variation are:

$$c_1 = \frac{S_1}{m_2}, \quad c_2 = \frac{S_2}{m_2}, \quad c_3 = \frac{S_3}{m_3}.$$

Then we define the following Coefficients of Equalisation :

$E_1 = \frac{c_2}{c_1}$ measures the equalising effect of government transfers.

$E_2 = \frac{c_3}{c_2}$ measures the equalising effect of direct taxation.

$E_3 = \frac{c_3}{c_1}$ measures the combined effect of government transfers and direct taxation.

If government transfers were distributed in proportion to income E_1 would be equal to 1. As they are in fact not distributed in this way but are either given in equal quantity irrespective of income (as in the case of family allowances) or are directed towards those whose incomes would otherwise be small or negligible (as with retirement pensions), E_1 is less than 1. If government transfers were used to supplement every income to the point at which all incomes were equal, E_1 would be equal to 0.

Similar considerations apply to E_2 and E_3. So long as direct taxation is progressive E_2 is less than 1. If direct taxation were to remove all personal incomes in excess of, say, £500 and government transfers were used to raise all other incomes to this level, E_3 would be equal to 0.

The three coefficients for Oxford, and the data on which they are based, are given below.

	Mean m	*Standard deviation* s	*Coefficient of variation* c
1. Gross personal income, excluding government transfers	447	452	1.01
2. Gross personal income, including government transfers	469	457	0.97
3. Net personal income after tax	405	291	0.72

$$E_1 = 0.96, \qquad E_2 = 0.74, \qquad E_3 = 0.71$$

It is clear from this that the equalising effect of direct taxation is far greater than that of government transfers; but of course the purpose of government transfers is to mitigate poverty, not to equalise incomes.

APPENDIX III

Durable Goods Ownership and Hire-Purchase

We bring together here the information on the ownership of durable goods and the incidence of hire-purchase that was collected in the course of this survey. This information emerges as a by-product of the inquiry but it may be of some interest for its own sake.

Table XX shows the percentage of spending units of each type who owned a car, a television set, a washing machine or a refrigerator. It is noteworthy that while half the people in the top income group own cars (often used for business as well as private purposes) and refrigerators, only an eighth

TABLE XX
Ownership of durables

Characteristic of spending unit	*Percentage of spending units in each group who owned :*			
	Car	*Television set*	*Washing machine*	*Refrigerator*
All spending units	15	7	8	9
Total income of spending unit :				
Under £200	1	2	—	1
£200 to £399	8	4	4	4
£400 to £599	18	9	12	5
£600 to £999	27	16	14	11
£1000 and over	51	11	13	52
Occupation of head :				
All manual workers	*8*	*7*	*7*	*2*
Skilled worker	20	7	15	—
Semi-skilled (machine)	—	18	4	5
Semi-skilled (other)	4	2	2	2
Unskilled	2	—	4	1
Salaried and self-employed	*32*	*10*	*12*	*19*
Clerical, shop assistants, etc.	21	6	10	11
Managerial, etc.	33	12	11	21
Self-employed	50	11	18	30
Retired and unoccupied	*9*	*4*	*2*	*11*
Age of head :				
18 to 29	10	5	3	4
30 to 39	18	12	7	5
40 to 49	23	11	18	15
50 to 59	21	4	11	11
60 to 69	14	6	3	12
70 and over	1	2	—	6
Housing status :				
Primary spending unit				
Rents	14	3	6	6
Owns outright	30	9	10	17
Owns with mortgage	24	33	26	24
Secondary spending unit	7	4	—	2
Number of children under 16 in spending unit :				
None	15	4	4	9
One	15	9	10	3
Two	19	22	20	10
Three or more	15	11	12	12
All spending units				
Percent who owned	15	7	8	9
Percent who bought in the past year ...	3	5	2	3

of them own washing machines or television sets. The most intensive ownership of television sets was amongst the spending units with incomes of £600 to £999. Semi-skilled workers in machine occupations, *e.g.*, motor car assemblers and press operators, show a marked interest in television but managerial employees and the self-employed are not far behind them, and the salaried and self-employed as a whole are ahead of the manual workers as a whole in this respect. We find that the people with mortgages are particularly good customers for durable goods : a quarter of them own a car, a third own television sets, a quarter a washing machine, and a quarter refrigerators. Secondary spending units, as one would expect, are not important as owners of durable goods. People with children are more likely to have television sets, washing machines and refrigerators than those without children, but not so with cars. Families with two children are more likely to have a television set or a washing machine than families of other sizes. The final section of the table shows that in every case a fairly large proportion of the durable goods owners had bought the item during the past year, especially in the case of television sets. In the case of the cars it must be remembered that many of the people who bought cars had sold second-hand cars at the same time.

Table XXI shows the same data expressed in a different way. It indicates, for example, that over half the refrigerators were owned by the top income group (£1,000 a year and over); that half the television sets were owned by manual workers, as well as half the washing machines; and that about two-thirds of all television sets and washing machines were owned by families whose heads were between 30 and 49. At the time of our inquiry only one in eight of the children in Oxford are estimated to have been in families that owned a television set.

TABLE XXI

Distribution of durables

(percentage distribution of durables amongst spending units of different types)

Characteristic of spending unit	*Per cent of spending units of each type in total population*	*Per cent of these durables owned by each type of spending unit*			
		Car	*Television set*	*Washing machine*	*Refrigerator*
All spending units	100	100	100	100	100
Total income of spending unit :					
Under £200	17	1	4	—	1
£200 to £399	35	18	22	20	15
£400 to £599	29	34	36	46	18
£600 to £999	13	17	28	18	12
£1000 and over	6	30	10	16	54
Occupation of head :					
Manual worker	52	27	49	48	11
Salaried and self-employed ...	31	63	41	48	67
Retired and unoccupied	17	10	10	4	22
Age of head :					
18 to 29	18	12	11	7	9
30 to 39	21	25	36	20	12
40 to 49	19	28	29	45	33
50 to 59	15	20	9	22	18
60 to 69	15	14	12	6	21
70 and over	12	1	3	—	7

Table XXII shows the percentage of spending units of each type who owed money on hire-purchase at the time of interview and how much was owed on the average by these people. Only 12 per cent of all spending units had debts on hire-purchase outstanding at the time of interview but the frequency was greater than this amongst the middle income groups, the semi-skilled workers and the junior white collar workers. Although only 8 per cent of the top income group owed money on hire-purchase they seem to have owed larger amounts on the average.

TABLE XXII. *Hire-purchase*

Characteristic of spending unit	*Percent of spending units in group who owed money on hire-purchase at time of interview*	*Average amount owing by those who owed any hire-purchase*
	%	£
All spending units	12	22
Total income of spending unit :		
Under £200	5	7
£200 to £399	10	25
£400 to £599	17	18
£600 to £999	15	15
£1000 and over	8	43
Occupation of head :		
All manual workers	*13*	*21*
Skilled workers	7	14
Semi-skilled (machine)	24	21
Semi-skilled (other)	15	28
Unskilled	8	15
Salaried and self-employed	*14*	*25*
Clerical, shop assistants, etc.	20	22
Managers, professional and technical employees	11	37
Self-employed	11	5
Retired and unoccupied	*6*	*7*

APPENDIX IV

PARTIAL CORRELATION ANALYSES

(1) *Gross Income, Saving and Housing Expenditure*

This analysis was made for primary spending units only, *i.e.*, heads of households. Secondary spending units have no housing expenditure by our definition.

	Zero-order coefficients	*First-order coefficients*
Income and saving	+0.205	+0.181
Income and housing	+0.328	+0.315
Saving and housing	+0.107	+0.043

The small zero-order correlation between saving and housing expenditure is barely significant and is mainly accounted for by the correlation of each variable with income.

The multiple coefficient of saving on income and housing expenditure is only +0.331.

(2) *Gross Income, Saving and Expenditure on Durable Goods*

This analysis was made for all spending units.

	Zero-order coefficients	*First-order coefficients*
Income and saving	+0.202	+0.342
Income and durables	+0.427	+0.497
Saving and durables	—0.231	—0.358

The negative zero-order correlation between saving and durable expenditure is increased in the partial analysis.

The multiple coefficient of saving on income and durable expenditure is +0.536. Income and durable expenditure together go a substantial distance towards explaining saving behaviour.

THE COST OF INEXPENSIVE NUTRITION BEFORE AND AFTER THE WAR

1. Food Consumption above the ' Human Needs ' Level

Twice every year we publish surveys of the cost of a ' human needs ' diet, in which we consider the expenditure necessary for a very plain but nutritionally satisfactory diet, for a family of 5 persons. The diet schedules compiled for that purpose include only the simplest foods; no allowance is made for the purchase of such ' luxuries ' as butter, cooked meats, cake, biscuits, etc. However, most families are accustomed to buy a diet that is somewhat more varied. It is true that in the hands of a good cook the ingredients set out in our ' human needs ' schedules can yield meals as varied as many that cost considerably more; but the housewife would have to bake all her cakes, make her puddings and pies from basic ingredients, and forego the use of the tin opener. A somewhat more expensive diet can provide variety with less effort.

The question is often put to us how much it costs to purchase a diet which, while still very economical, is above the ' human needs ' level, and by how much the cost of such a diet has risen since before the war. This question is not easy to answer. Since the composition of such a diet is different from that of a ' human needs ' diet it cannot simply be assumed that the respective figures of cost have changed in the same proportion as those of the ' human needs ' diet. To assess the change in cost of a ' human needs ' diet for a family is comparatively easy; for with respect to such a diet the problem of replacing scarce foods by others that are available and are relatively inexpensive, is essentially a nutritional problem—provided, of course, the foods chosen are such as allow of the preparation of customary meals. But a mother with young children can, *e.g.*, give her children more milk puddings when tasty sources of animal protein—meat, cheese, eggs—are scarce, without necessarily creating the impression that the culinary aspect of the family diet has deteriorated. A diet above the ' human needs ' level, on the other hand, should be a diet for anyone, whether single or a member of a family, and the range of ingredients from which it is derived should be wide enough to permit of reasonable variations according to circumstances, without altering fundamentally the culinary aspect of the diet.[1]

Before the war, variety could be obtained comparatively cheaply, largely by the use of ' straight ' foods—meat, bacon, eggs, sugar—the supply of which was unrestricted. Since then a housewife has had to resort to much substitution. But how can we equate the culinary value of a pre-war diet with that of a post-war ' substitute ' diet ? Culinary values are essentially subjective. Moreover, there has been in some respects a general deterioration in the culinary appeal of almost all types of diets above the ' human needs ' level : they all contain less meat, and more of it of an inferior kind; butter is largely replaced by margarine; all fats are scarce, and the same is true of sugar and eggs. But what everyone, or nearly everyone, has to endure, cannot be considered a special hardship for any particular section of the population; hence ' substitution ' in these instances must doubtlessly often be interpreted as replacement by foods of a poorer quality. On the other hand, every housewife, every family, will naturally try to achieve a diet as appetizing and nutritious as is in their power. If, therefore, we undertake to map out a post-war diet that can be compared with a given pre-war diet we must seek to strike a balance between these two opposed basic facts : general shortages of certain foods, and the desire for their ' adequate ' substitution. In doing this an element of arbitrariness cannot be avoided, for we have to treat qualities as though they were capable of interpretation in quantitative terms; we shall, however, endeavour to keep it down to a minimum.

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[1] An adequate diet for young children is, of course, fundamentally different from a diet for adults. In the *Appendix* we have set out some diet schedules for children in different age groups, which, approximately, represent the same culinary standard as the main diet that we are about to discuss.

Data of food consumption somewhat above the ' human needs ' level, before the war, are available from two sources : the 1937–38 Ministry of Labour inquiry into working-class expenditure, and our own surveys of the turnover of multiple grocery shops, which go back to 1938–39. In Table I we have listed a number of foods which, for short, we shall term ' groceries ', since the prices for them were obtained from the grocery shops. The prices for 1938–39 and 1945–46 represent the actual average prices charged by all these shops[1] while those for 1952 were collected from only a sample of the shops. Since in 1952 the shops appeared to sell more high grade meats, cheeses, cake, biscuits, and jam, than before and immediately after the war, the prices for 1952 were taken of those goods which most closely corresponded to the types sold in the earlier years. The quantities which we show per head per week for 1938–39 are actually those of the Ministry of Labour survey for 1937–38, for butter, margarine, fats, bacon, eggs, sugar, jam, and tea. For the other items—with the exception of flour—no quantities were published by the Ministry of Labour, and our figures represent the approximate sales per head per week by the grocery shops, which supplied about one twentieth of the whole population of England. Only the quantity of sausages has been raised by us by about 1 oz., so as to allow for purchases from butchers' shops. Since in Table I we wanted to exclude flour bought for domestic bread making, we used the figure of average grocery sales (6.7 oz.) in preference to the Ministry of Labour figure (18.7 oz.).[2]

In calculating the quantities in Table I for the post-war years we have assumed, first, that the housewife purchased all her rations; secondly, that as far as possible, she purchased as much of the remaining foods as she had done before the war; lastly, that in 1945–46 she exchanged most of her jam ration

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[1] Derived from figures of total annual turnover.

[2] Domestic bread making was far more common before the war than it is nowadays, but the flour used for it was usually bought in bulk from bakers and millers.

TABLE I

Groceries per Person per Week

	1938–39 Quantity	Price*		1945–46 Quantity	Price*		May 1952 Quantity	Price*	
		s.	d.		s.	d.		s.	d.
Fats (*Group A*) :									
Butter	7.6 oz.	1	2	2.7 oz.	1	8	3.0 oz.	2	6
Margarine	3.0 oz.		6¼	3.4 oz.		9	4.0 oz.	1	2
Lard and Cooking Fat ...	4.3 oz.		5¾	1.3 oz.		9	2.0 oz.	1	4
Outlay (*Group A*)			*9¼*			*6*			*11¼*
Animal Protein Foods (*Group B*) :									
Bacon	5.9 oz.	1	0	3.0 oz.	1	11½	5.0 oz.	3	2
Cooked Meat	2.4 oz.		9¾	1.3 oz.	1	9¾	2.4 oz.	2	0
Sausages	4.0 oz.		7	4.0 oz.	1	2¼	4.0 oz.	1	6†
Cheese	3.0 oz.		8¾	2.7 oz.	1	1	1.0 oz.	2	0
Eggs, shell	3.7 eggs		1¼	0.7 egg		2	2.0 eggs		5
do. dried	—		—	1.0 egg		1¼	—		—
Outlay (*Group B*) :		*1*	*2*		*1*	*2½*		*2*	*7½*
Sweet Foods (*Group C*) :									
Sugar	20.4 oz.		2½	10.0 oz.		4	10.0 oz.		6
Jam and Marmalade... ...	4.2 oz.		5½	4.2 oz.	1	0½	4.2 oz.	1	3½
Cake and Biscuits	3.7 oz.		6¾	3.6 oz.	1	1½	3.7 oz.	1	11
Outlay (*Group C*) :			*6¼*			*9*		*1*	*1¼*
(*Group D*) :									
Flour	6.7 oz.		1¾	6.7 oz.		3	6.7 oz.		6
Outlay (*Group D*) :			*0¾*			*1¼*			*2½*
(*Group E*) :									
Tea	3.0 oz.	2	6¼	2.5 oz.	3	6	2.0 oz.	3	9
Outlay (*Group E*) :			*5¾*			*6½*			*5½*
Total Outlay		*3*	*0*		*3*	*1¼*		*5*	*4*

*Eggs in shell and dried, per egg, all other foods, per lb.
†Beef sausages and sausage meat.

for sugar, and supplemented the jam and marmalade rationed specifically—the only ones that could be so exchanged—by others rationed on ' points '.[1] The figures for cooked meat, eggs, and cake and biscuits, for 1945–46, when all these foods were still very scarce, are those of the actual turnover of the grocery shops per ration book. The groceries listed in Table I for 1945–46 and 1952 therefore fall short, as compared with those for 1938–39, with respect to those foods of which the supply was restricted either by rationing or by general scarcity.

2. FOOD SHORTAGES AND PRICE INDICES

These deficiencies are brought out in Table II in terms of nutrients. In 1945–46 and in 1952 the groceries provided only about three-fifths of the

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[1] The figures for sugar and jam in Table I correspond approximately to those obtained from our budget surveys of working-class household expenditure in 1945 and 1946.

TABLE II

Calorific and Protein Values of Groceries in Table I (Per Day)

Food Group	1938 Calories	1938 Protein (gm)	1945–46 Calories	1945–46 Protein (gm)	May 1952 Calories	May 1952 Protein (gm)
A	3346	—	1640	—	2010	—
B	1818	87	1167	57	1336	60
C	2905	8	1771	8	1781	8
D	663	22	663	22	663	22
Total	8732	117	5241	87	5790	90

calories and two-thirds of the animal protein that could be obtained from similar groceries in 1938–39. From a nutritional point of view, deficiencies in one of the food groups could to some extent at least be compensated by foods from another group. An increase in the consumption of flour would yield not only additional calories but also some more protein, although only of vegetable origin. But this clearly will not do if we are thinking of culinary substitutes. As regards these we must at least try to replace like by like, fats by fats, animal protein foods by animal protein foods, sweet foods by sweet foods. Since it was not possible to obtain more of the rationed foods, substitutes must be looked for amongst the related foods—largely composite foods containing fats, sugar, and meat. What was the cost of such substitution?

Let us first consider the usual price indices. In Table III we have calculated price indices by means of both the Paasche and the Laspeyre formula. The Paasche formula, which weights the price relatives of the survey year and the base year by the purchases in the survey year, appears to be somewhat more realistic than the Laspeyre formula, which uses the weights of the base year, particularly in view of the fact that many of the foods of which the supply was limited, were also highly subsidized (which might have an unjustifiable 'deflationary' effect on the Laspeyre index). But neither of these price indices can be applied to both pre-war and post-war quantities,

TABLE III

Indices of Cost of Groceries

Food Group	1938–39 Price Paasche	1938–39 Price Laspeyre	1938–39 Nutritional Cost*	1945–46 Price Paasche	1945–46 Price Laspeyre	1945–46 Nutritional Cost*	May 1952 Price Paasche	May 1952 Price Laspeyre	May 1952 Nutritional Cost*
A	100	100	100	145	145	131	227	226	198
B	100	100	100	174	170	159	315	325	328
C	100	100	100	193	190	236	279	284	347
D	100	100	100	171	171	171	340	340	340
E	100	100	—	139	139	—	149	149	—
All Groceries	100	100	100†	165	162	170†	262	263	289†

*The indices for groups *A*, *C*, and *D*, refer to calories, the index for group *B* to protein. The final figure is derived from the calorific value of all the foods.

†Except tea.

hence, neither can reveal how much it actually cost to purchase a basket of groceries equivalent to the pre-war basket.

If the traditional price indices are of little use for our purpose, let us turn to index figures based on nutritional values. The changes in calorific or protein values, shown in Table II, can be corrected for the respective changes in cost and expressed in standardized terms. This will give sets of indices purporting to measure the changes in the cost of the nutritional content of the four food groups in Table I. Table III shows also these indices. They are clearly a little less rigid than the price indices, since they treat each food group as a whole and therefore allow for substitution amongst all the foods comprised by that particular group—indeed, in the final figures, for substitution amongst all the foods listed in Table I. These final figures of nutritional cost are based on calorific values, as also are the indices referring to the food groups A, C, and D. For the indices of group B only, we have made use of the figures of protein content, since the main importance of the foods in this group derives from it. The errors involved in the inevitable shifts from figures of protein values to those of calorific values of the foods in group B, for the computation of the final figures, is not very large.[1]

In spite of its somewhat greater flexibility this index, too, suffers from some serious defects. First, since it is concerned only with nutritional values, no figures for tea can be included. Further, were we to apply this index as it stands as a gauge of changes in actual cost we should be assuming either that the changes in nutritional costs were spread evenly between rationed and unrationed foods, so that reductions in the quantities of the former could be made good by additional purchases of the latter without affecting the pattern of cost, or else that the pre-war nutritional intake could in practice be attained by an all-round increase of all the foods, rationed and unrationed, proportionate to the respective index figure,[2] neither of which assumptions would be justified.

A direct way to assess changes in cost, including the cost of substitutes, as defined, would be to select specific foods chosen on some principle of ' culinary equivalence ', so as to fill up the gap in the pattern of food purchases before the war, caused by rationing and other shortages. This, though plausible, could arouse the serious objection that culinary values, which are subjective, cannot be measured in precise terms, in particular when we are not dealing with ' straight ' foods that can serve as the bases for a wide variety of meals. As we have pointed out before, the need to find substitutes for pre-war foods that have become scarce frequently compels the housewife to purchase composite foods, which often have to be eaten in the form in which they are bought. If, therefore, instead of making adjustments with respect to specific foods we can make adjustments for each of our food groups as a whole, we shall infuse a considerable amount of elasticity into our picture, allowing for the individual choice of specific items, in whatever form preferred.

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[1] For 1945–46, the index of nutritional cost of group B is almost the same, whether relating to calories or to protein, while for May 1952 the index relating to calorific values would be only 309, as against the index figure of 328, which compares the protein-values. This shift in balance was due to the fact that in 1952 the relatively large allowance of bacon was accompanied by a very reduced allowance of cheese, which latter, like bacon, is a useful calorific food, but, unlike bacon, also a very good source of animal protein.

[2] This latter assumption would of course lead us back to the Paasche index.

Towards this, the index of nutritional cost—though defective—is a step in the right direction. In Table I, the foods are arranged in what we may term ' culinary groups '—fat foods, animal protein foods, sweet foods, starchy foods, and tea. An intake ' equivalent ' to the pre-war intake must be planned in such a way as to approach, as closely as is feasible, the pre-war intake from each of these separate groups. Substitution in some form or other will be inevitable; yet foods replacing pre-war foods that are in short supply should replace not only the nutrients thus lost but also—as far as this can reasonably be done—the essential culinary ingredients represented by each group. Under conditions of general shortages this cannot always be achieved; nevertheless, it remains the ideal.

On the assumption that *factor cost* (of the typical nutrients) of substitutes in the various food groups has risen since the war in the same proportion as the corresponding factor cost of all items comprised by each group, the index of nutritional intake in Table III would measure the actual increase in the cost of the foods in groups A, B, C, and D, from before the war until

TABLE IV
Subsidies on Diet in May 1952

	Unit	Subsidy per Unit	Subsidy on Weekly Diet
		d.	d.
Butter	lb.	9¼	1.73
Margarine	lb.	3¾	0.94
Cooking Fat	lb.	3½	0.44
			3.11
Bacon	lb.	13	4.06
Cheese	lb.	11	0.69
Eggs	dozen	11½	1.92
			6.67
Sugar	lb.	1	0.63
Flour	½ stone	14½	0.87
Tea	lb.	8½	1.06
Bread	3½ lb.	6¼	7.14
Meat	lb.	3½	2.19
Milk	quart	2¼	3.94
Potatoes	½ stone	2	1.05
			14.32
Total Subsidies			26.66

May 1952, if subsidies entered into the cost of substitutes to the same extent as into the cost of rationed foods. The basic assumption—the proportionate rise in factor cost—does not seem unreasonable; the implied assumption—that substitutes are subsidized in the same proportion as rationed foods—is certainly unjustified, and, therefore, calls for a correction. In order to be able to make it we must first know to how much amount the subsidies on rationed foods, at a given date.

The main food subsidies that concern us in this paper, are set out in Table IV, for May 1952. The foods there listed—with the exception of the last four—are the rationed foods included in Table I. The figures of subsidies per unit are the most recent ones released by the Ministry of Food. The total value of the subsidies on the groceries in May 1952, shown in Table I, was approximately 1s. In 1951—the last full budget year—the total net subsidies on food amounted to just over 400 millions while in 1945–46 the sum was about 100 millions less. If we assume a proportionate reduction in the subsidies included in the cost of the groceries in 1945–46, it would mean that this cost, as shown in Table I, fell short of the actual cost by about 9d.[1]

Subsidies enter only to a very small extent into the cost of substitutes as defined by us. They could not be calculated without first establishing a dietary setting out specific substitutes and we will therefore assume that all substitutes were unsubsidized.[2] In Table V are given percentage figures which show the amount of nutritional substitution that would be required in order to raise the calorific value or the protein value,[3] of each of the four food groups, in May 1952, to the corresponding pre-war value; for tea, the percentage figure refers to weight. By means of the indices of nutritional cost in Table III (for tea, the price index) figures have been calculated showing the cost of the pre-war volume of each group if subsidies were given on rationed and unrationed foods alike. In a separate column are set out the amounts of subsidies that must be disallowed if we assume that the substitutes carry no subsidies. These two sets of figures add up to figures of cost that satisfy our assumptions, *viz.*, that, for each group, the factor cost of the typical nutrient has risen alike for ' substitutes ' and for all foods comprised by that group, but that the ' substitutes ' are unsubsidized.

This gives us for May 1952 a figure of what for short may be termed the ' actual cost ' of a basket of groceries approximately equivalent to the basket bought in 1938–39. In Appendix I some schedules are given indicating how, in detail, such substitution could have been achieved within the limits of the

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[1] This figure allows for differences (in terms of calories) in the quantities of rationed groceries in 1945–46 and 1952.

[2] This, however, is decidedly not true if we include canteen meals amongst the substitutes. But in this context they are better disregarded. For, on the one hand, the reduction in their actual price through subsidies on basic foods which they contain, would be far more than counterbalanced, in most cases, by the charges for the preparation of meals included in their price. On the other hand, the purchase of canteen meals not only reduces the outlay on domestic fuel, but more important, saves—for some member of the family—time which, in the strict meaning of the phrase, might be ' gainfully employed '.

[3] Of the foods in groups B.

TABLE V

Cost of Pre-War Volume of Groceries in May 1952

Food Group	Substitutes Needed in 1952 for 1938–39 Volume*	Cost of Groceries including Subsidies on Substitutes	Subsidies on Substitutes	Cost of Groceries excluding Subsidies on Substitutes	Index of cost excluding Subsidies on Substitutes (1938–39 =100)
	%	s. d.	d.	s. d.	
A	40	1 6½	2	1 8½	222
B	31	3 9	3	4 0	343
C	37	1 9	0½	1 9½	344
D	—	2½	—	2½	340
E	33	8½	0½	9	149
Total		7 11½	6	8 5½	282

*Food groups *A* and *C*, calories ; food group *B*, protein ; tea (group *E*), weight.

total outlay of 8s. 5½d. Less extensive calculations have been made for 1945–46; but on the same assumptions as those underlying the calculations made for May 1952, and allowing for the differences in the nutritional content of the baskets, as set out in Table I, the cost of a volume of groceries in 1945–46 equivalent to that in 1938–39, would have been approximately, 5s. 4d.

3. THE COST OF A COMPLETE DIET

We will now attempt to compute the cost of a complete diet, embodying these figures of cost of groceries. The 1938–39 volume of groceries, shown in Table I, would provide about half the calories, three-eighths of the animal protein, and two-fifteenths of the vegetable protein, of a diet yielding, per day, 2,500 calories and 66 grammes of protein, half of it of animal origin. In Table VI a schedule supplementary to that in Table I has been drawn up

TABLE VI

Weekly Diet for One Person

	Quantity	1938–39 Price*	1938–39 *Outlay*	1945–46 Price*	1945–46 *Outlay*	May 1952 Price*	May 1952 *Outlay*
		d.	s. d.	d.	*s. d.*	d.	*s. d.*
Meat	10 oz.	10.00	*6¼*	12.00	*7½*	22.00	*1 2*
Fish	12 oz.	7.00	*5½*	10.00	*7½*	15.00	*11¼*
Milk	3½ pt.	3.50	*1 0¼*	4.50	*1 3¾*	6.00	*1 9*
Bread	4 lb	2.13	*8½*	2.25	*9*	4.29	*1 5¼*
Macaroni, Rice, etc.	12oz.	3.00	*2¼*	7.50	*5¾*	11.00	*8¼*
Potatoes	3 lb 11 oz.	0.82	*3*	1.14	*4¼*	2.21	*9¼*
Vegetables & Fruit	3 lb	4.00	*1 0*	6.20	*1 6½*	9.92	*2 5¾*
Other Foods† ...	—	—	*5½*	—	*8½*	—	*1 1¾*
Total			*4 7*		*6 4¾*		*10 4½*
Groceries	1938–39 Volume		*3 0*		*5 4¼*		*8 5½*
Full Diet			*7 7*		*11 9*		*18 10*
Index of Cost ...			100		155		248

*Milk per pint, all other foods, per lb. †Including condiments, sauces, etc.

so as to bring the dietary up to this level of nutritional intake, which approximately represents the average requirements per person. The quantities of the foods shown in Table VI could be obtained at all the periods surveyed. In fact, more meat was available per head per week—and was purchased—not only before the war but also in 1945–46. Since, however, the prices of several of the foods enumerated in Table VI are only approximations and not actual average prices it seemed better to avoid the refinement of different weights in the different years. In any case, within the framework of the whole diet schedule, approximately 10 oz. of meat would be enough to raise the total amount of animal protein from the whole diet to 33 grammes per day, *i.e.*, to 50 per cent of the average daily requirement of protein.

The cost of the supplementary items shown in Table VI would have been 4s. 7d. in 1938–39, 6s. 4¾d. in 1945–46, and 10s. 4½d. in May 1952 ; it thus would have risen from 100 in 1938–39 to 139½ in the first post-war year and to 226 in May 1952. The cost of the groceries approximately equivalent—though not equal—in kind and in nutritional values to those obtained in 1938—39, would have gone up from 3s. to 5s. 4½d. in 1945–46 and to 8s. 5½d. in May 1952. The cost of the complete diet, 7s. 7d. in 1938–39, would have been 11s. 9d. in 1945–46 and 18s. 10d. in May 1952 ; in terms of indices, it would have moved from 100 to 155 and, finally, to 248.[1]

TABLE VII

Cost of Certain Foods at Ministry of Labour Survey Prices

	Ministry of Labour Survey 1937–38 Av. Price*	Ministry of Labour Survey 1937–38 *Outlay*†	Diet in Table VI *Outlay*†
	d.	*d.*	*d.*
Butter	16½	*7¾*	*6¾*
Margarine	6¾	*1¼*	*1*
Bacon and Ham	16½	*6*	*4½*‡
Eggs	1½	6	*4½*
Sugar	2½	*3¼*	*3¼*
Tea	28¼	*5¼*	*5¾*
Flour	2¼	*1*	*0¾*
Meat	12	*7½*	*6¼*
Bread	2½	*9½*	*8½*
Potatoes	1	*3½*	*3*
Milk	3¼	*11½*	*12¼*
Total Outlay		*62½*	*56½*

*Eggs, per egg ; milk, per pint ; all other foods, per lb.
†Calculated for the quantities shown in Tables I and VI, for 1938–39.
‡Bacon only.

In Table VII we compare the prices used for our computation of the schedule for 1938–39 with those of the Ministry of Labour survey of household expenditure in 1937–38. It will be seen that the application of these Ministry of Labour prices would have resulted in a figure of weekly cost 6d.

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[1] We have assumed the average cost of vegetables and fruit, and of ' other foods ' to have risen in the same proportion as the figures of total cost. The figure of outlay on ' other foods ' for 1938–39 represents the approximate expenditure per head by the customers of the grocery shops.

above that shown by us for 1938-39. During and after the war, bulk purchases and rationing have levelled out differences in the quality of butter, margarine, and eggs, so that with respect to these foods the rise in cost in the post-war years would be somewhat less for those families that before the war paid more than the prices shown in Table I. Nevertheless, families that before the war in general purchased foods of a higher quality—or purchased less economically—than assumed in our schedule, would still have been able to spend also proportionately more on their foods in the post-war years (on more expensive kinds of cooked meat, sausages, jam, vegetables, fruit, etc.), and the actaul rise in the cost of a diet ' equivalent ' to their pre-war diet would probably not be very different from that shown by the indices of the inexpensive diet which we have outlined.

4. The Cost of Food and Earnings

It is interesting to compare the rise in the cost of this diet with the rise in average earnings. This is done in Table VIII. All the figures in this Table are based on data published by the Ministry of Labour. The figures of earnings for 1945-46 represent the averages of those published for July 1945, January 1946, and October 1946. The most recent official figures of average earnings available are for October 1951. It will be seen that from October 1938 to October 1951 the average earnings of all workers went up from 100 to 265, and those of male earners over 21 years of age, from 100 to 240. Since then, wages have risen further; but owing to short-time working and increased unemployment in some industries, earnings may have increased by less than wages. Yet even as they stand the figures suggest that, on the average, up to May 1952, the rise in incomes was at least proportionate to the rise in the cost of the diet.

Table VIII

Ministry of Labour Indices

Date	Average Weekly Earnings Male 21+	Average Weekly Earnings All Workers	Retail Price of Food Date	Retail Price of Food Index
October 1938	100	100	1938–39	100*
July 1945—Oct. 1946	172	182	1945–46	127*
October 1951	240	265	March 1952	181½†

*Based on figures computed by Professor R. G. D. Allen and D. Seers.

†Approximately: a change in the weighting of the index was introduced in January, 1952.

The Ministry of Labour index of retail prices employing the weights derived from the 1937-38 survey (modified in January 1952),[1] shows a rise in the cost of food much less steep than either the indices of earnings or the indices of cost of food as calculated in this paper. If we use the data from our bi-annual surveys of the cost of a ' human needs ' diet for a comparison, we find a rise in the cost of food from just before the war to April 1952—the most recent survey date in that series—about 4 per cent higher than the increase in cost of the somewhat more expensive diet outlined here.[1] This divergence in trends was to be expected, since bulk buying and shortages have not only tended to level out differences in quality but, in doing that, have also narrowed the price ranges of many of the more common foods, relatively raising the lowest prices and bringing down the highest.

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[1] The figures shown in Table VIII for 1938 and 1945–46 are based on computations made by Professor R. G. D. Allen and D. Seers

5. Conclusion

The exposition in the foregoing pages represents, we think, a fairly realistic picture.[2] The concept of ' culinary substitutes ' is certainly in every housewife's mind when she is faced with scarcities of foods to which her family is accustomed. It is, perhaps, necessary to underline here once again that the purchase of substitutes for foods in our five grocery groups need not—indeed, often will not—result in purchases confined to the specific groups. Thus the desire to replace fat may induce a housewife to buy more cake, which contains fat and eggs and sugar and flour, and thus adds to the essential nutrients derived from all four food groups. If she buys additional milk for the children, so as to save tea, she increases the amount of animal protein, mainly derived from food group B; and so on. In her attempts at substitution she may not strike the exact balance; it is, in fact, unlikely that she will. But because of the general dietary habits she will adjust her purchases as far as she can to attain such a balance. From the pre-war to the post-war years, a certain deterioration in the culinary quality of the foods, taken as a whole, is very probable : butter is partly replaced by margarine; shell eggs by dried and frozen eggs (in cakes and other 'made up' foods); inexpensive meats, like corned beef and pressed veal, by luncheon sausage and sausage mixtures. Moreover, owing to the general shortage of fats and of sugar, the consumption of flour, either as such or in the form of processed foods, is likely to have increased. However, this kind of deterioration has to be accepted by nearly everyone, and it could not be made good by large section of the population. To the extent to which the individual tries to escape it, it is bound to inflate the cost of his post-war diet, since he will be bidding for foods which are scarce and which therefore have become luxuries and can command luxury prices.

Strictly speaking, no comparison of the costs of equivalent pre-war and post-war diets, is, therefore, possible. If, however, for practical purposes we accept the assumptions made in this paper, we are in a position to compute an index of cost going back to the pre-war period. This index, taken as 100 for the last pre-war year, rose to 155 in the first post-war year and to 248 in

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[1] In 1938–39, the weekly cost per head was about 4s. 9d. ; in 1945–46 it was 7s. 5d. ; in April 1952, it was 12s. 3¼d. It thus rose from 100 in 1938–39 to 258 in April 1952.

[2] In Appendix II some suggestions are made as to how the inexpensive diet could be adapted to suit the needs of children of different ages.

May 1952. During approximately the same periods the average weekly earnings of all workers[1] went up from 100 to 182 and, finally—in October 1951—to 265, while the corresponding earnings of all male workers over 21 years of age, increased from 100 to 172 and eventually, to 240.

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APPENDIX I

According to our index, 3s. 1½d. would have been required in May 1952, for the purchase of ' substitute ' foods. In Table A some possible patterns of the outlay of this sum are shown, each of which would raise the intake from the diet approximately to the required standard. Indeed, since calories obtainable before the war from pure fats would have to be replaced partly by fatty meat foods and partly by starchy foods, the total intake of protein—from both animal and vegetable sources—would tend to be somewhat higher than required for a simple ' compensation '. This might be considered as some nutritional improvement of the pre-war diet. On the other hand, the inevitably increased consumption of bread, flour, or some other cereal food (owing to the shortage of fats, a general feature of post-war diets), would represent some culinary deterioration, which might be taken to offset the slight nutritional improvement. The four ' supplements ' set out in Table A are only intended to throw out a few suggestions. They could easily be added to; but they will suffice as an indication that the post-war diet need not lack in variety.

TABLE A

Supplements Raising 1952 Groceries to Pre-War Volume

	Qty.	*Outlay*	
	oz.	*s.*	*d.*
Cheese	2		*4½*
Luncheon Meat	4	*1*	*0*
Cake and Biscuits ...	10	*1*	*2½*
Syrup	11		*2¾*
Bread*	14		*3¾*
		3	*1½*
Cheese	2		*4½*
Cooked Meat	2		*3*†
Cake and Biscuits ...	10	*1*	*2½*
Syrup	6		*4¼*
Jam	2½		*2½*
Cocoa	1½		*3¾*
Rice	8		*5*
		3	*1½*
Cheese	2		*4½*
Pork Sausages ...	4		*6½*
Tinned Fish‡ ...	2		*6*
Cake and Biscuits	10	*1*	*2½*
Syrup	4		*2¾*
Bread	12		*3¼*
		3	*1½*
Cheese	2		*4½*
Pork Sausage ...	2		*3¼*
Ham	2	*1*	*3*
Sausage Rolls ...	5		*8*
Bread	25		*6¾*
		3	*1½*

*Flour can be substituted for bread at the ratio of about 2 oz. of flour for 3 oz. of bread.
†Cheap quality. ‡Herrings, pilchards, sardines.

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[1] As defined in the Ministry of Labour Gazette.

APPENDIX II

In Tables B and C we show diets that would be adequate for children of school age and for children under school age, and that, we think, approximately correspond to the type of diet for adults outlined in the main paper. We have considered the two groups of children separately, since for the younger children half the meat ration is disallowed and replaced by a daily pint of cheap milk. Children at school can obtain there every day 1/3 pint free, but since attendance at school only amounts to about 180 days per year, the actual average consumption of milk at school would be only 1/6 pint per day.

Of the total average outlay of 18s. 10d. per week the following proportions would be required for the diets of children: up to the age of 6 months, 25 per cent; from 6 months to 1 year, 30 per cent; from 1 year to 3 years, 41 per cent; from 3 years to 5 years, 47 per cent; from 5 years to 7 years, 64 per cent; from 7 years to 12 years, 79 per cent; from 12 years to 15 years, 97 per cent. After that age the full outlay would probably be necessary for a diet fitting into the framework of our general schedule. For although normally in a family with but limited means some of the more expensive luxury foods may be withheld from the growing child with a big appetite, what is saved on quality would have to be expended on quantity.

TABLE B

Weekly Diets for Children under School Age

	Qty.	*Outlay*	
		s.	*d.*
Child aged 0 to 6 months :			
(*1*) Milk	7 pt.		*10½*
(*2*) Sugar	10 oz.		*3¾*
(*3*) Eggs	3 eggs	*1*	*3*
(*4*) Other Foods* ...		*2*	*6*
Total Outlay		*4*	*11¼*
Child aged 6 months to 1 year :			
(*1*) Foods (*1*) & (*2*) for child aged 0 to 6 months ...		*1*	*2¼*
(*2*) Meat	5 oz.		*7*
(*3*) Cheese	1 oz.		*1½*
(*4*) Butter	3 oz.		*5½*
(*5*) Margarine	1 oz.		*1*
(*6*) Eggs	3 eggs	*1*	*3*
(*7*) Bread	7 oz.		*2*
(*8*) Semolina, etc. ...	2 oz.		*1½*
(*9*) Other Foods* ...		*1*	*8*
Total Outlay		*5*	*7¾*
Child aged 1 year to 3 years :			
1) Foods (*1*) to (*5*) for child aged 6 months to 1 year		*2*	*5¼*
(*2*) Eggs	2 eggs		*10*
(*3*) Bacon	3 oz.		*7¼*
(*4*) Fish	6 oz.		*5½*
(*5*) Sausages ...	1 oz.		*1¼*
(*6*) Cooked Meat ...	½ oz.		*0¾*
(*7*) Bread	11 oz.		*3*
(*8*) Semolina, Rolled Oats, etc. ...	10½ oz.		*7¼*
(*9*) Potatoes ...	24 oz.		*3½*
(*10*) Pulses ...	2 oz.		*1½*
(*11*) Cake and Biscuits	4 oz.		*5¾*
(*12*) Other Foods* ...		*1*	*6*
Total Outlay ...		*7*	*9*
Child 3 aged to 5 years :			
(*1*) Foods for child aged 1 to 3 years ...		*7*	*9*
(*2*) Bacon	2 oz.		*4¾*
(*3*) Fish	2 oz.		*2*
(*4*) Sausages ...	1 oz.		*1¼*
(*5*) Cooked Meat ...	½ oz.		*0¾*
(*6*) Bread	3 oz.		*0¾*
(*7*) Semolina, Rolled Oats, etc. ...	3½ oz.		*2½*
(*8*) Pulses	1 oz.		*0¾*
Total Outlay ...		*8*	*9¾*

*Including cod liver oil and orange juice.

TABLE C

Weekly Diet for Children of School Age

	Qty.	*Outlay* *s.*	*d.*
Child aged 5 to 7 years :			
(*1*) School Milk	1⅙ pt.		*free*
(*2*) Other Milk	5½ pt.	*2*	*9*
(*3*) Eggs	2 eggs		*10*
(*4*) Sugar	10 oz.		*3¾*
(*5*) Meat	10 oz.	*1*	*2*
(*6*) Bacon	5 oz.	*1*	*0*
(*7*) Cheese	1 oz.		*1½*
(*8*) Butter	3 oz.		*5½*
(*9*) Margarine	3 oz.		*2¾*
(*10*) Fish	8 oz.		*7½*
(*11*) Sausages	2 oz.		*2¼*
(*12*) Cooked Meat	1 oz.		*1½*
(*13*) Bread	21 oz.		*5¾*
(*14*) Semolina, Rolled Oats, etc.	16 oz.		*11*
(*15*) Potatoes	30 oz.		*4¼*
(*16*) Pulses	3 oz.		*2¼*
(*17*) Cake and Biscuits	4 oz.		*5¾*
(*18*) Other Foods		*1*	*9*
Total Outlay		*11*	*11¾*
Child aged 7 to 12 years :			
(*1*) Foods for child aged 5 to 7 yrs.		*11*	*11¾*
(*2*) Cooking Fat	1 oz.		*1*
(*3*) Bread	21 oz.		*5¾*
(*4*) Semolina, Rolled Oats, etc.	10 oz.		*7*
(*5*) Potatoes	4 oz.		*0½*
(*6*) Pulses	3 oz.		*2¼*
(*7*) Syrup	4 oz.		*2¾*
(*8*) Other Foods		*1*	*3*
Total Outlay		*14*	*10*
Child aged 12 to 15 years :			
(*1*) Foods for child aged 7 to 12 years		*14*	*10*
(*2*) Cheese	2 oz.		*4½*
(*3*) Margarine	1 oz.		*1*
(*4*) Cooking Fat	1 oz.		*1*
(*5*) Fish	4 oz.		*3¾*
(*6*) *do.*, tinned	1 oz.		*3*
(*7*) Sausages	2 oz.		*2¼*
(*8*) *do.*, pork	2 oz.		*3¾*
(*9*) Bread	22 oz.		*6*
(*10*) Potatoes	4 oz.		*0½*
(*11*) Cake & Biscuits	10 oz.	*1*	*2½*
(*12*) Tea	½ oz.		*1½*
Total Outlay		*18*	*3¾*

The diet schedules in Tables B and C do not include all the rationed foods; hence, in a family with young children, some of the children's rations would, most likely, assume the role of 'substitutes', as defined by us. It is not, however, possible to make any precise statement as to how this would affect the pattern of cost, except it were done for select families of clearly defined structures; but the effect of such pooling of rations on the cost of the diets of adults could not be very large. On the other hand, an active adult might need more than the average intake of 2,500 calories, entailing, approximately, a proportionately higher expenditure.

MONETARY RESTRICTION & ECONOMIC PROGRESS

By the end of 1950 the success of the Marshall Programme seemed assured. A European overall and dollar balance was well on the way of being achieved. Since then a renewed dollar crisis threatens to overwhelm Europe, especially Britain and France. International trade is being cut cumulatively and unemployment is experienced for the first time since the war even in Britain and France. The correct diagnosis of the causes of this regrettable set-back, in a period when the U.S., the dominant economy, is experiencing a continuous expansion of defence and fixed capital expenditure, is of the utmost importance in order that correct remedial measures should be taken. Thus the Report of the Experts Committee appointed by a special resolution of the Council of O.E.E.C.[1] to enquire into the difficulties which have arisen in the balances of payments in the member countries both with the Dollar Area and with one another is of considerable interest. It should be emphasised that the Report had to be written in six weeks. Thus insufficient time was available for what was obviously expected to be a document of major importance, a signpost out of the present difficulties of the major Western European countries.

The Report of the Expert Committee starts with a general review of the world economic position after the devaluations of 1949. They note the welcome, indeed unexpectedly favourable, change in the position of Western Europe in the Spring of 1950, but do not analyse in detail how far this ' unexpected ' recovery was due to the upward turn in U.S. business activity. They regret, however, that the policies pursued in the United States after the Korean outbreak :

> ' were not such as to impose a greater restraint on the development of the boom. For although there were centres elsewhere which enjoyed transitory gains from their movement, many of these gains have not proved lasting. A more orderly development would have been to the benefit of all concerned.'

Yet they stress at the outset that it is

> ' the *relative* rather than *absolute* movements of money incomes which are relevant for the maintenance of international equilibrium.'

Their condemnation of uncoordinated strategic stock-piling[2] (to which private stockpiling should be added) is no doubt justified. But *general* deflationary measures were hardly an adequate remedial action against stocking of raw materials which was due to the fear of war. On the other hand such measures might well have resulted in even earlier general shrinkage of demand in the *civilian* sectors which is a notable feature of the present situation not only in America but also in other countries.

The experts conclude : [3]

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[1] O.E.E.C. Information Division Press/A (52) Paris, June 18th, 1952.

[2] Ibid. para. 84.

[3] Ibid. para. 26.

> ' We may proceed to the discussion of the international financial policies of Member states without taking into consideration possible aggravations of their difficulties by a decline of business in the United States.'

In their discussion of economic trends in various European countries they take similar views.

> ' the policy of the *Belgian* Government has indeed been very prudent. But it is relevant to observe that the policy of some other governments in the past has been characterised by the contrary tendency. If other governments had been less imprudent, it would be much easier to argue that the prudence of the Belgian Government had been a little excessive.'[1]

It should be noted that Belgium experienced heavy unemployment and was throughout a large creditor in the European Payments Union.

The severe inflationary crisis which has been experienced by *France* is attributed to an inflationary expansion of bank credit to finance investment, the consequences of which were magnified by psychological anticipations. They note the 'extraordinary psychological change' experienced since the inception of the Pinay experiment but doubt whether this will be sufficiently lasting to maintain the position for long without further effective steps. Thus further cuts in the Budget are demanded. The social security accounts and the Budget of the publicly owned utility undertakings come in for special censure. It is also suggested that productive investment should be further curtailed.[2] The experts decline to express opinions on the need for, and suitable lines of Budgetary reform. No such reticence is observed in their strong hints about the necessity of a further devaluation.[3]

In the case of Britain the Report tries to measure the extent of the inflation experienced by quoting the increase in prices and wages. Though it admits that this increase was hardly greater than that in America, the Report does not state that the British devaluation had not had its full effect on prices by the beginning of the period analysed and that therefore no conclusion can be derived even on the *relative* internal monetary position of the U.S. and U.K. by comparing price increases within the period. In fact import prices increased more sharply than ' home ' prices.

The Report approves the change in monetary policy instituted by the present Government as constituting a ' new revolutionary innovation ' which should be ' an immense help ' in restoring the position.[4] ' But it is to be wished that more could have been done in the Budget.'[5] It envisages a further cut of food and also one of housing subsidies, and the pruning of social services.

From this analysis their ' Inferences for General Policy ' follow automatically.[1] The Report accepts the need for active budgetary policy to maintain equilibrium, including an expansion policy in case of deflation. But it dismisses the early practical risk of such a contingency in a summary fashion[2] and expresses scepticism about the efficacy of budgetary policy because of its inflexibility and tardy action. Arguments in favour of the use of direct controls as a means of readjustment, are dismissed by the Report by saying ' that they (controls) tend to evoke retaliations.'[3]

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[1] Ibid. para. 74.

[2] Ibid. paras. 35–48.

[3] Ibid. paras. 49–50. It is doubtful whether such hints, reminiscent of U.S. statements in 1949, are prudent or helpful in present conditions.

[4], [5] Ibid. para. 64.

Deflationary monetary policy is commended not on the ground that it will *check spending*, but that it will *enhance an increase in production.* It is contended that

> ' to arrest inflation or to divert resources into channels in which they earn the wherewithal to pay for sufficient imports may involve some temporary retardation of the pace of economic advance—as when a car is diverted from running down a steep slope over a precipice. But, if there were not such a policy, the alternative would be a much worse check to production, the check which comes from the disorder of high inflation and from the inability to procure sufficient food or raw materials from abroad. The maintenance of progress in production depends essentially upon policies which maintain internal and external financial equilibrium.'[4]

The experts close their Report by saying

> ' may we venture to hope that, as the period from 1947 onwards has witnessed such a remarkable effort to increase national production, the period from 1952 onwards may witness a parallel effort to rectify national finances. We are confident that it would eventually yield a handsome dividend in increased production.'[5]

It is difficult to accept either the economic analysis underlying this Report or the general theoretical conclusions which follow. Let us turn, first of all, to the views expressed on the current world economic position :

1. There is no analysis of the basic determinants of U.S. economic activity or of its balance of payments.[6] We are not given a considered view of the impact effect on the world position of the rapid changes in the U.S. propensity to save. Nor is any attention paid to the possible longer run implications of the rapid expansion of fixed investment since 1950 which has proceeded despite (or rather in consequence of) the vast increase in defence expenditure[7]. No attempt is made to enquire into the probable effects of the stretch-out of the arms programme on the level of U.S. economic activity.

Even though production in the United States was relatively stable in 1951, the latter half of that year was characterised by an abrupt decline in the imports of sterling area commodities for stocking. This phenomenon could also be observed in 1947 and 1949 and in each case it caused or at least substantially contributed to the discomfiture of the balance of payments of the Sterling Area. Thus it is safe to conclude that a mere absence of special strategic stock-piling demand would hardly suffice to smooth fluctuations in American imports; and such is the importance of America that even such minor short-term movements might result in very serious crises abroad.

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[1] Part IV, paras. 76 to 92.

[2] A motoring simile is used to clinch the argument. Ibid. para. 83.

[3] Ibid. para. 81. [4] Ibid. para. 84. [5] Ibid. para. 106. [6] Cf. Part III, paras. 28–34.

[7] Order books of non-durable goods have been declining steadily and are now less than half of their peak. Even in durable goods including armaments unfilled orders are no longer increasing.

2. Under these conditions the conclusion that American demand would be well maintained ' in the coming months ' *i.e.* until the end of 1952 is hardly well argued—though for other reasons one might not disagree with it. But even if we granted the claim that business activity in the United States will be maintained in 1952 or even in the beginning of 1953, this can hardly be considered an adequate reason for *long* term *policy recommendations* in the weaker countries of a *severely deflationary* character, the effects of which will not be felt merely *in the coming months but in the coming years* and which might well engulf all in a competitive beggar-my-neighbour policy. Nor is this all. Should the fall in savings not continue in America it is difficult to see how the United States will avoid some readjustment when the current investment plans have matured, and such a readjustment might, in the unstable psychological conditions, which will certainly continue, quickly deteriorate into a real setback if energetic steps were not taken at the first sign of deflation.

3. The defence of the Belgian ' prudent ' policy seems unconvincing. The alleged ' imprudence ' of other Governments could hardly excuse an *actively deflationary* policy in Belgium—so deflationary indeed that it succeeded in maintaining large scale unemployment[1] despite the inflationary effect of large export surpluses. Suffering from unemployment, Belgium could have easily permitted herself to be less ' prudent ' so long as other countries were 'imprudent' *i.e.* were good markets to sell to without suffering a deficit in her balance of payments.

4. In discussing British policy the experts complain that budgetary policy was and is not sufficiently deflationary. Yet the Report shows conclusively that the vast fluctuations in the British balance of payments could not be attributed to monetary causes, as the British inflationary movement was only imperceptibly greater than that in the United States. Their desire for continued restraint on wages can hardly be gratified by the policies they advocate, every single one of which involves a redistribution of incomes from the poor to the rich. Their recommendations could be combined with wage restraint not by the free will of the unions but only if the unions were made incapable of pressing their claims. Indeed paragraphs 65 and 66 of the Report can be interpreted as a plea for more unemployment.[2]

[1] In Annex IV an attempt is made to explain away Belgian unemployment which amounts to some 12 per cent of employment or 236,000 workers. 90,000 is attributed to ' frictional ' and ' residual ' (sic) unemployment and 71,000 to partial and incidental causes. In 1947 Belgium as other countries had no significant unemployment. The ' residuals ' and ' accidents ' which have emerged since are just as in other countries in similar conditions a result of deflation.

[2] It dismisses the plea of the British Treasury that cuts in consumption would have caused an unnecessary further aggravation of an already disquieting measure of unemployment as not taking into due account the risk of inflation.

This brings us to the general policy recommendations of the Report:

1. It is difficult to discuss the merits of the strong preference given to monetary policy by the Report as the assertion of its superiority over budgetary policy or direct controls because of its ' flexibility ' or ' rapidity of action ' is only supported by reference to motoring experience and not by an analysis of the respective impact effect on the balances of payments and standards of life of the various policies.[1]

The prompt effectiveness of monetary measures depended in the past entirely on short term capital movements. It was therefore conditional on an absolute confidence in currencies and in the freedom of transfer. Thus only powerful creditor countries could safely rely on this mechanism. And only in powerful creditor countries could this effect be considered a complete answer to the disequilibrium : it meant a suitable decrease in lending and not the accumulation of a specially vulnerable type of foreign indebtedness. Already prior to the first war weaker countries found that the mechanism was ineffective to cure their unbalance. They had to suspend payments and abandon their gold parity. Once short term capital movements are excluded —and they could not in the case of debtors contribute to basic readjustment —there is little to commend monetary policy on the ground of the rapidity or subtlety of its action.[2]

So far as ' real ' readjustments are concerned they are neither rapid nor selective. So long as confidence in the general economic prospects is maintained, a change in interest rates is powerless to influence investment. The efficacy of the rate of interest rests on destroying confidence; rationing of credit is also effective. But neither of these modes of operation of monetary measures seems the best way of selecting the most suitable investment projects. And it is the diminution of investment which bears the main burden of readjustment; the cut in consumption and imports is a secondary and smaller consequence. Is a cut in productive investment the most hopeful policy for Europe already suffering from grave competitive disadvantage in comparison with the U.S.? A policy which could adjust the propensity to import and thus maintain ' innocuous ' domestic consumption and protect investment can thus be proven to have superior short and long run effects.[3]

As the Experts are reticent about the exact mode of operation of monetary policy they do not indicate why in their view a budgetary policy which would produce an equivalent deflationary impact as an ' effective ' monetary policy could not safeguard the balance equally well.[1] Both policies are indirect; they therefore can influence the foreign balance only at the cost of an unnecessary lowering of the standard of life and of unemployment. But the incidence of the sacrifice exacted can at least be consciously regulated by fiscal means while it is largely haphazard in the case of monetary policy.

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[1] At various points (e.g. para. 28) the Experts disclaim the intention to denigrate budgetary policy and they admit the need for direct controls in ' emergency '. But as the committee of officials ably point out (O.E.E.C. Press A.52 (53) para. 8) they never specify the conditions constituting an emergency.

[2] Incidentally the Report regards the influx of capital to the U.K. initiated by the change in monetary policy as salutary though it merely postpones the problem.

[3] Their recommendation to introduce general convertibility i.e. to abandon exchange controls (para. 85/6) is hardly better argued (it is unclear whether they wish to restore the ' liberty ' of exporting capital to the U.S.). The consequences of a reintroduction of convertibility on the terms of trade and the standard of life is not discussed. It is merely asserted : ' The maintenance of progress in production depends essentially upon policies which maintain internal and external financial equilibrium.' 'Attention to this objective is probably best guaranteed by the convertibility of local currencies.'

2. It is insufficient to condemn direct controls by throwing out the remark that direct control tends to evoke retaliation. All historical evidence points to the conclusion that deflationary policy in *one* country will also spread higher rates of interest and deflation *elsewhere*.[2] And the Experts seem to have peculiar views of the duties of creditor countries in a gold standard regime. The gold standard apparently, is to function with the creditor countries barely maintaining their economic activity whilst the debtors are forced to deflate. Active deflation in parts of the world is in any case hardly compatible with a boom elsewhere (unless large scale Government intervention takes place in the expanding country) because deflation will lead to a tendency towards undercutting and a generalization of the lack of confidence. In a deflationary biassed gold standard, however (which would be the inevitable outcome of creditors not permitting an increase in their price and income levels), there can be no doubt that deflation will spread rapidly, and induce weaker countries to seek shelter behind increased autarky.

3. The hope that restrictive monetary policy might contribute towards enhanced prosperity might be comprehensible if at least one could hope for a strong upward trend in the dominant part of the world economy, the U.S. Continued prosperity in the U.S. would maintain progress in Europe despite internal monetary restriction by energising Europe through the counter-deflationary influence of export surpluses *i.e.* the process which has taken place in the last two years in Germany and Belgium.[3] There is, however, no reason to suppose that if the Experts' advice were accepted all round prosperity in the U.S. would continue.

4. The most astonishing feature of the Report is its commendation of restrictive monetary policy for its alleged stimulus to economic progress.[4] This conclusion is derived from a motoring metaphor and not backed by detailed economic analysis. The question before the debtor countries is not, as the Experts suggest, whether a continued depletion of international reserves is to be tolerated or not—because it cannot be tolerated—but how exactly the task of stopping the drain is to be accomplished. Thus the experts ought to have considered and compared the consequences of various policies (*e.g.* a direct cut in imports or devaluation or a selective encourage-

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[1] The Report, op. cit. para. 79. Nor is it a recommendation for monetary policy that the statistics underlying the Budget are not adequate. They certainly are more adequate than the indicators which determine monetary policy.

[2] Which would be the equivalent of ' retaliation '.

[3] The intermediate balance of payments crisis of Germany at the end of 1950 was mainly due to the shock administered by premature liberalisation of imports.

[4] Cf. ibid. paras. 84 and 106.

ment of export through suitable direct controls) on the standard of life and economic progress. Only if they had shown that monetary policy involves the least sacrifice to poorer countries[1] would their conclusions stand. This they failed to do. Much of the hardship caused by general deflation will not contribute to the restoration of the balance of international payments.

5. It is significant and hopeful that the Committee of Officials representing the civil services of the various countries did not accept the conclusions of the Report; they emphasised that

> ' even mild variations in the U.S. demand for imports could have serious consequences for the economies of Western Europe in spite of all efforts to maintain internal financial stability by suitable monetary measures. For in such a situation, financial weapons alone would probably be powerless to correct the resultant disequilibrium and measures of a more selective nature might become indispensable.'[2]

They also are sceptical of the optimism of the experts about the consequences of restrictive monetary policy on production[3] and call attention to the all-but-forgotten five year expansion programme of O.E.E.C. which represented such a new departure in European economic reconstruction. It is only through a return to that approach and through patient and detailed work of coordinated planning for expansion that our hopes for continued stability can be realised. Discrimination against U.S. exports will unquestionably be required for a long time to come—even if U.S. aid were continued and extended. Talk about ' convertibility '—whatever that may mean—will only postpone the emergence of a balanced international economy. It is to be hoped that the present relapse from rational reasoning will only be a temporary phenomenon which will not inflict irremediable damage on the economic and social fabric of the Western world.

T. BALOGH.

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[1] Some attention ought to have been paid to relative standards of life and a desirable international distribution of income.

[2] Press A.53 (53) para. 11. [3] Ibid, para. 10.